

*THE DIGITAL  
PHOTOGRAPHER'S GUIDE TO*

# LIGHT MODIFIERS

*TECHNIQUES FOR SCULPTING WITH LIGHT®*



**ALLISON EARNEST**

**Amherst Media®**  
PUBLISHERS OF PHOTOGRAPHY BOOKS



**ABOUT THE COVER PHOTO:** Your responsibility as a photographer is to be creative and keep your portraits fresh and exciting. I set out to create high-school senior portraits of my niece while visiting her on Catalina Island, California. Since I am quite familiar with the architecture of the island, I chose to create her portrait in front of a building that would accent the color of her outfit. Because it looked like rain, my son (and acting assistant) Tyler brought along an umbrella. Tyler, who was eight years old at the time, insisted that his cousin hold the umbrella for one shot—and this is the result. The umbrella served as an interesting prop and a useful gobo, blocking the unwanted light to the model's right. This created a beautiful sculpting/shadow effect on her facial mask. I am so thankful that I listened to my son, or this image would not have been created. A single SB800 (powered at  $-1/2$  stop) was placed to create a Paramount (or butterfly) lighting pattern. A small Sunbounce mini zebra was then added at about 45 degrees to camera left and high in relation to the subject, creating a nice Rembrandt light pattern fill. The concrete below bounced a bit of natural light back up onto Aubree's face, filling in the shadows under her eyes. *SUBJECT:* Aubree Hunt. *CAMERA:* Nikon D300, 80–200mm f/2.8 ED Nikkor lens, Lexar media. *SETTINGS:* AWB, manual mode,  $1/250$  second, f/6.3, ISO 400.

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<http://weddingphotographer-amherstmedia.blogspot.com/>





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## DEDICATION

This book is dedicated to my sister Deborah Lundsford, who passed this year. From the first day I picked up a camera, some thirty years ago, Deb was always my biggest fan. I miss you! And to my children, Stephanie and Tyler; without their patience, this book would not have been written. Find your passion in life, then follow through with compassion, integrity, and balance. You two are my world.



## ABOUT THE AUTHOR

Allison started her photography career over twenty-six years ago. Working as a photographer for NASA, she documented space shuttle landings and experimental aircraft at Edwards Air Force Base in California. She also worked as a medical/advertising photographer at Centinela Hospital, the hospital of the Lakers, Kings, and Dodgers.

Many of Allison's photographs have appeared in magazines and journals. Two of her fashion/people images were nominated, two years in a row, at the Black & White Spider awards. Currently, she is a Pro Contributor for Lexar Media.

Allison holds a BS in Business Management from the University of Maryland. She is essentially a self-taught photographer and credits her success to countless mentors who have, throughout the years, graciously shared their knowledge and talent. She believes in continuing education and is currently teaching photography, lighting, and postproduction workflow classes to aspiring photographers.

In the last four years, Allison has written numerous educational articles for *Studio Photography* magazine. One such article, "Sculpting People with Light," was particularly well received; based on it, Amherst Media asked her to write her first book, *Sculpting with Light®: Techniques for Portrait Photographers*.

To learn more about Allison, visit [www.allisonearnestphotography.com](http://www.allisonearnestphotography.com).

PHOTO BY DON JONES PHOTOGRAPHY.



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A special thanks to Don Jones for creating an amazing author portrait. Don, you inspire me to challenge myself photographically on a daily basis. (You are amazing!)

Lastly, thanks to Amherst Media for believing in me enough to offer me continued opportunities to help inspire others and for their dedication to educating present and future photographers everywhere.

If I've neglected to thank you personally, know that you are in my heart.

Photography is light and can easily be described as “writing with light.” Just as an artist uses a paintbrush to create a painting, a photographer uses light to create or record an image on his digital sensor or film. Incorporating light modifiers into the lighting mix enables a photographer to control their chosen light, thus creating a photograph that shows depth and dimension with a unique style.

In my first book, *Sculpting with Light®: Techniques for Portrait Photographers* (also from Amherst Media), you learned how to place your subjects relative to your light source and how and where to place your light to create pleasing portraits. Now it’s time for you to learn how to control the light you have—whether it’s available light or artificial light. To control your light, it is essential to become familiar with light modifiers and the different qualities of light they produce. Only with light modifiers will you be able to take control of your light and start creating a style—or, better yet, *your* style—of photography.

A light modifier can be described as any apparatus that is placed on a light source, over a light source, or between a light source and the subject to change the original look or quality of that light source. As an example, let’s imagine a scenario in which the sun is our primary light source. On a sunny day, the light illuminating our subject is quite harsh. When the clouds come in, they act as a light modifier, changing the light quality from harsh to soft and diffused. Can you see why using modifiers is essential?

There are many different light modifiers on the market. Some are better than others, but all perform essentially the same task: they change the light’s quality. Light modifiers are a photographer’s paint brush. They assist you in controlling not only the amount of light, but the quality of the light illuminating your subjects.

Each of the different light modifiers for studios and on-camera flash units has its own distinct purpose with regard to

light. My intent is not to confuse you by showing the countless modifiers on the market. My intent is to shed light on the most common light modifying equipment used, my personal favorites, and how they can affect your results by changing the quality of the light within your photographs. Then you, as the photographer, can decipher what “look” you like for your particular photography needs.

Sometimes photographers, myself included, are inclined to go back to what is familiar; when we allow ourselves to do this, however, our art doesn’t grow, change, or become better. For my part, writing this book has forced me to look differently at my photographs and my style of lighting. My hope is that it will inspire you to do the same—that you will gain a more comprehensive understanding of light modifiers and discover ways to refine your own style using them.

## THE ROLE OF THE PHOTOGRAPHER

With so many new photographers entering the market, it is imperative that you step up your photographic skills. No longer is it enough to just get a good exposure, to use one light in the studio, or to illuminate your subjects using direct on-camera flash. If you shoot in this manner, your photographs will look just like those produced by amateurs who merely “take” (or “snap”) pictures. Back in the film days, the primary differentiation between professionals and amateurs was the equipment used and use of lighting techniques. Today, it is very common to find yourself shooting a wedding using exactly the same equipment as the guests attending the wedding. Whether you are a seasoned professional who has become complacent or an amateur with aspirations of making a living as a professional photographer, you owe it to yourself—and to your clients—to *make* photographs, not *take* photographs.

A professional photographer makes photographs that show depth and dimension—images that are three-dimen-



sional representations of the subjects within a two-dimensional print. The only way to do this is through our use of lighting that produces pleasing highlights and shadows. Artists describe this technique as “chiaroscuro,” loosely translated as shadows and light visible in an image. Light modifiers are great tools for controlling the quality of light. This enables you to show depth and texture, to evoke emotion, and to add allure by lighting your subjects in such a way that your images become three-dimensional.

Take, for example, the following two photographs. **Photograph I-1** is a good image that is well-exposed, sharp, and properly lit. Though it is good, however, anyone could have taken this photo. Now, let’s look at **photograph I-2**. This photograph, shot in New York with model Gabriel Grier, shows depth, dimension, and a creative use of light—and a certain unique style that the previous image doesn’t possess. Can you see the difference?

Both images were shot within several minutes of each other. The difference between the two is the use of lighting, exposure, and modifiers. **Photograph I-1** was shot in program mode with a hot-shoe flash placed off camera at a 45-degree angle to camera left. **Photograph I-2**, on the other hand, required a conscious control of the existing light and the creative use of flash to create mood. An ambient meter reading was recorded and my shutter speed set one stop below the metered ambient exposure. A single Nikon SB800 flash, fitted with a Ray Flash powered to record –1 stop of flash power, was used as the main source of illumination. My shutter speed was set to record the outside tungsten light that acted as a beautifully warm hair light. Using the available light as a kicker, hair, or accent light source is an easy way to add inexpensive depth to your images.

If you study the two images, you’ll clearly see the difference in the lighting, mood, depth, and dimension in each photograph. The techniques are not difficult to master, but it does require understanding of the most important aspect of any photographic image: light.



**PHOTOGRAPH I-1 (ABOVE).** *SUBJECT:* Gabriel Grier. *CAMERA:* Nikon D300, 24–70mm f/2.8 Nikon lens, Lexar media. *SETTINGS:* AWB, program mode,  $\frac{1}{50}$  second, f/2.8, ISO 500.

**PHOTOGRAPH I-2 (FACING PAGE).** *SUBJECT:* Gabriel Grier. *CAMERA:* Nikon D300, 24–70mm, f/2.8 Nikon lens, Lexar media. *SETTINGS:* AWB, shutter priority mode,  $\frac{1}{30}$  second, f/2.8, ISO 500. *MAIN LIGHT:* Ray Flash.







# 1. THE PHYSICS OF LIGHT

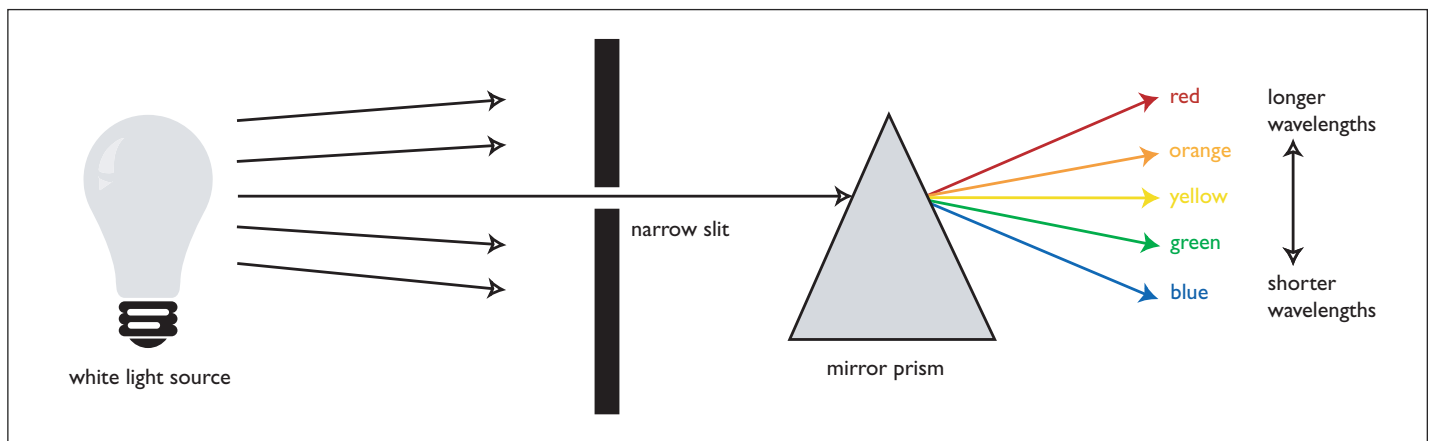
Have you ever noticed that the colors in color photographs don't appear the same way we originally saw them? Of course you have. It's because the range of brightness and shades of color seen by the human eye are quite different than those recorded in a photograph.

What the human eye sees is not what will be recorded on film or on a digital sensor. The human eye adapts and adjusts to the color, saturation, and brightness or darkness of its environment. Film and digital sensors, on the other hand, do not; they record the actual colors and illumination rendered from the light source. For example, a camera records indoor tungsten light as yellow/orange, while the human eye sees it as a form of white. Understanding this phenomenon is key to producing images of the highest color and image quality.

## PERCEPTION OF LIGHT AS COLOR

Visible light, the part of the electromagnetic spectrum that can be seen by the human eye, forms tiny bands of wavelengths among many other forms of radiant energy. The human body can detect shorter wavelengths, such as x-ray and ultra-violet light, because they penetrate tissue; longer wavelengths, such as infrared and microwaves, have no direct effect because the energy emitted is so low.

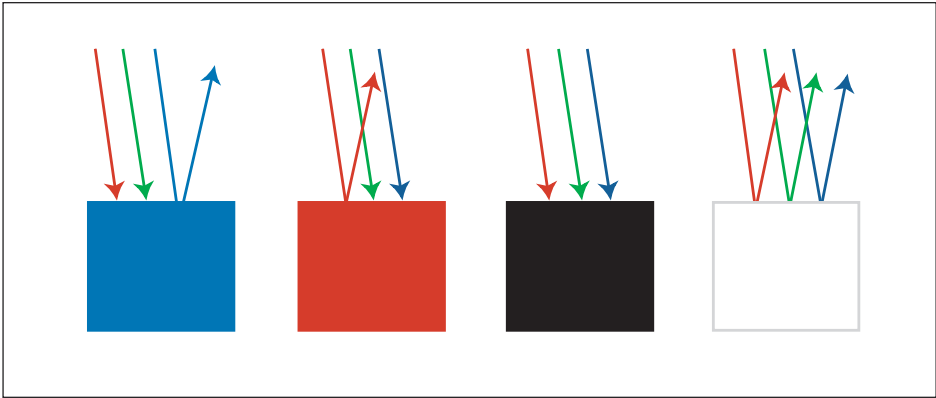
It is only at wavelengths between 400nm and 700nm that the human eye registers what is perceived as light. Within this visible range, Isaac Newton proved that stimuli of different wavelengths produce all of the different colors. When we



**DIAGRAM 1-1.** When light emitted from a white-light source passes through a narrow slit and a prism, it separates into component wavelengths of different colors.



**DIAGRAM 1-2.** Surfaces and substances absorb some wavelengths while reflecting others. It is these reflected waves that create our perception of color.



talk about color, we are actually referring to wavelengths of light that produce a particular color. For example, when we talk about “blue light” we are really referring to the wavelengths that elicit the sensation of blue. We see the world in a multitude of colors because surfaces and substances absorb certain wavelengths and reflect other wavelengths back to our eyes.

The chart below is an overview of the energy (wavelengths measured in nanometers [nm]) and the color emitted.

**LONGER WAVELENGTHS**

Red	.....645nm
Yellow	.....590nm
Green	.....540nm
Cyan (green-blue)	.....500nm

**SHORTER WAVELENGTHS**

Blue	.....455nm
Violet	.....390nm

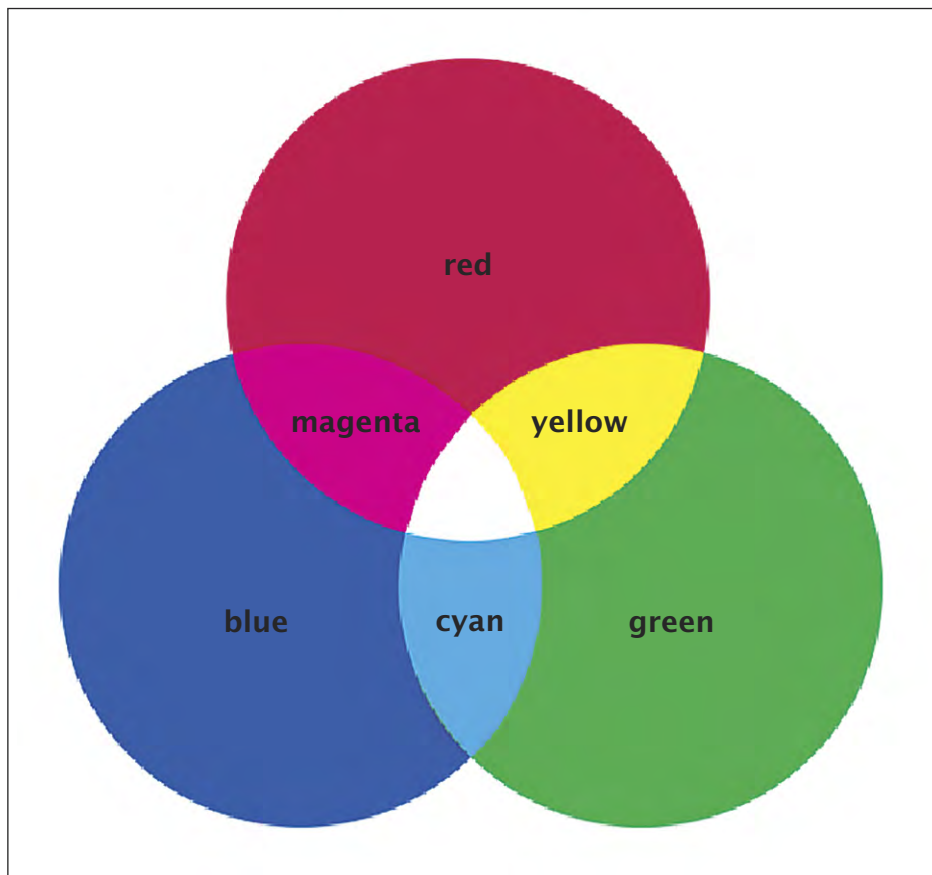
**PRIMARY AND COMPLEMENTARY COLORS**

Primary colors are a set of colors from which all other colors can be made. The primary colors for light (called the additive primaries) are red, green, and blue. The subtractive primary colors (usually used for pigments) are cyan, magenta, and yellow.

When all three subtractive colors are mixed together at full strength, the result is white (**diagram 1-3**; next page). When any two subtractive primaries are combined, the result is one of the additive primary colors. Conversely, when all three additive primary colors are mixed together at full strength, the result is black (**diagram 1-4**; page 15). When any two additive primaries are combined, the result is one of the subtractive primary colors.

**HOW WE SEE COLOR VS. HOW THE CAMERA SEES COLOR**

**The Human Eye.** The human eye contains two types of photoreceptor cells: rods and cones. These are located on the outer layer of the retina at the back of the eye. While the cones allow us to see different colors, the rods are used prima-



**DIAGRAM 1-3.** Combining all three subtractive primary colors in equal parts forms white. Combining any two creates one of the additive primary colors.

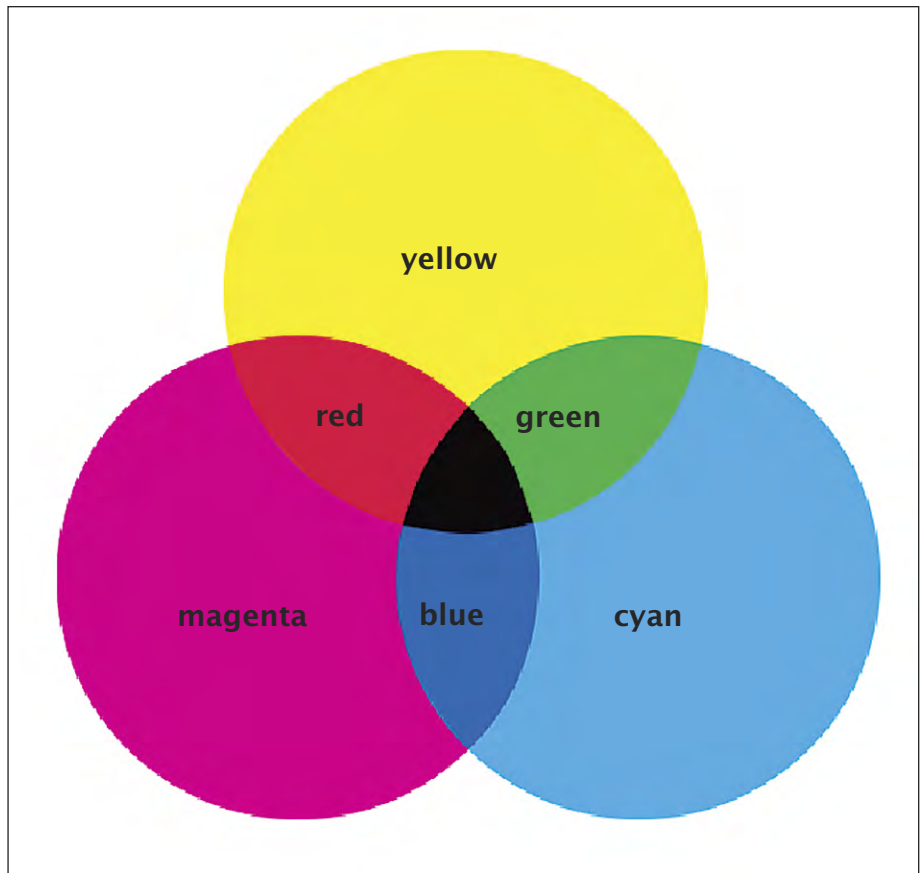
rily for perceiving light and dark. For example, a person with fewer rods in his eyes may experience difficulty seeing in the dark. A person with abnormal cones in her eyes may experience partial color blindness, limiting his or her ability to differentiate between certain colors.

Furthermore, according to trichromatic theory, the human eye has three different types of cones: red, green, and blue. This enables us to perceive a multitude of colors. When cones that are sensitive to red are stimulated, we see red. When cones that are sensitive to green are stimulated, we see green. When red and green cones are equally stimulated, we see yellow—just as we can see in the subtractive primaries diagram (**diagram 1-3**).

Learned behavior is another factor in determining color. If you grew up with a certain cone deficiency and your parents continually told you a banana is yellow, you would be conditioned to say a banana is yellow. Similarly, in some cultures, classification of colors is limited to red, green, blue, and yellow; all variations of red, for example, are simply called “red.” In Western culture, on the other hand, we have an abundance of names for red and its many different shades and hues—“candy apple,” “scarlet,” and “crimson” to name just a few. It just goes to show that even cultural aspects have a lot to do with how we perceive colors.

Finally, it is important to note that our eyes and brains also actively work to balance and neutralize colors, a phenomenon called chromatic adaptation. This is why a red apple always looks red, whether you are looking at it under a greenish fluorescent light or in the light of a pinkish sunset.

**DIAGRAM 1-4.** Combining all three additive primary colors in equal parts forms black. Combining any two creates one of the subtractive primary colors.



**The Camera.** Like the human eye, the digital sensors in our cameras are sensitive to red, green, and blue light. (Films are also sensitive to some or all the spectrum.) Unlike human eyes, however, cameras are totally objective; cameras record the actual color of the light striking the image-recording medium. This can cause discrepancies between what we see with our eyes and what we see in our images. For example, we may look at an area of white or gray in a shaded scene and see it as white or gray because our eyes have compensated for the actual bluish cast in the scene. An image of the same scene captured either on film or a digital sensor, however, will record the *actual* color of the light; the white or gray will be recorded as bluish in color. This might be acceptable for artistic or abstract images but definitely would not be flattering when photographing people.

Understanding the color of light, being able to describe it, and learning to “see” color are key components of becoming more discerning with regard to the final portraits you create or receive from your photo lab, as well. It will also help you in your postproduction and/or development of RAW image files. You need to be aware of what goes into creating exceptional color so that your clients receive the most professional portraits possible.

#### **PROFESSIONAL VS. AMATEUR**

Before we introduce the qualities of light, let’s take a look at an amateur and a professional photograph side by side. As visual artists, it’s important to be dis-





**PHOTOGRAPH 1-1 (LEFT).** Amateur image. *SUBJECT:* Gabriel Grier. *CAMERA:* Nikon D300, 24–70mm f/2.8 Nikon lens, Lexar media. *SETTINGS:* AWB, shutter priority mode,  $\frac{1}{500}$  second, f/4, ISO 200. *LIGHTING:* Unmodified direct sunlight creates unpleasant shadows for portraits.

**PHOTOGRAPH 1-2 (FACING PAGE).** Professional image. *SUBJECT:* Gabriel Grier. *CAMERA:* Nikon D300, 24–70mm f/2.8 Nikon lens, Lexar media. *SETTINGS:* AWB, shutter priority mode,  $\frac{1}{500}$  second, f/3.2, ISO 200. *LIGHTING:* Sunlight diffused with Sunbounce Sun-Swatter; reflector fill.

On a cloudy day, the sun is still the same size and distance to the subject, but the clouds act as a massive diffusion panel that is much closer to the subject. This scatters the light in many directions and produces a softer quality of light.

In **photograph 1-1**, we see Gabe again. This time he was photographed without any modification in the image. The light appears quite hard and the shadows and highlights on the right side of his facial mask are distracting and unappealing. **Photograph 1-2** illustrates how the clouds can act as a natural light diffuser—but since Mother Nature isn't predictable, you must sometimes provide your own means of controlling the lighting situation. In this case, a Sunbounce Sun-Swatter (a large, white translucent fabric modifier) was placed between the model and the light source, simulating cloud cover. To fill in the shadows, a mini zebra (gold/silver) Sunbounce reflector positioned to camera left bounced light onto Gabe's face. Can you see the difference?

## QUALITIES OF LIGHT

In order to create consistently creative photographs, there are a few basic qualities of light that photographers must be aware of: color, contrast, brightness, direction, and specular/diffusion. The first three qualities are measurable, making them easily controllable. The latter are subjective and can be modified to suit your style and taste. When light is mixed properly, beautiful images will be produced and your photography will evolve creatively.

**Color.** We already looked at the physics of light and color, now let's look at color as a quality of light. In my opinion, color is the most important quality of light. Gaining a firm understanding of it will allow you to create studio portraits that reflect your style. The continuum of colors in the visible spectrum is often arranged in a circle called a color wheel.

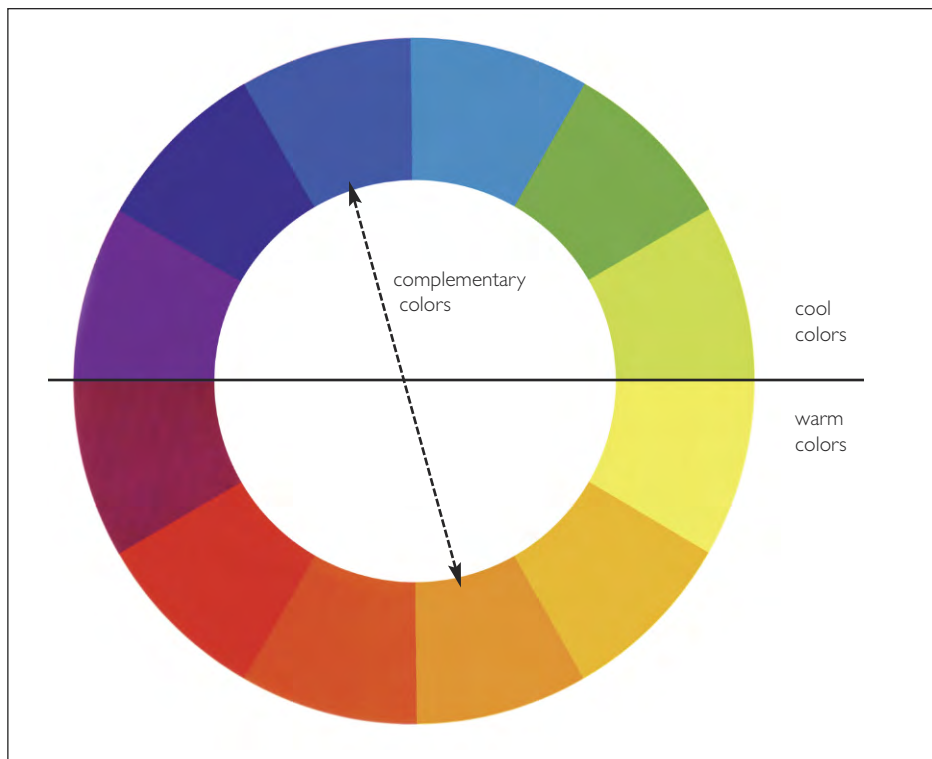
cerning in your photographic lighting technique. You must be able to recognize the difference between a poorly executed amateur photograph and a professionally lit portrait—and know how to arrive at the professional result.

Let's use the sun as an example. The sun is physically a huge source—870,000 miles in diameter. However, it is also extremely far from us here on earth. On a bright, cloudless day, the sun is quite small relative to a subject being photographed outdoors, thus the quality of light will be hard.









**DIAGRAM 1-5.** The color wheel shows the relationship between additive and subtractive primaries. For any given color, the color directly across the wheel is its complement. Understanding a color’s complement will greatly enhance your ability to create images that are pleasing to the eye. For example, if you are using a cool or blue light source and want to add a dramatic effect, such as a color gel, you could choose the gel that is complementary to blue—yellow. This theory also works well when choosing the clothing for portraits.

This wheel shows all of the primary colors, both additive and subtractive. Referring to this wheel makes it easy to evaluate an important relationship between colors: the complementary colors. These are pairs of colors that tend to contrast well with each other and, when combined in equal amounts, produce white. On the color wheel (**diagram 1-5**), complementary colors are located directly across from each other. For example, blue is the complement of yellow, while red is the complement of green. Becoming familiar with this theory will be very useful when designing portraits—especially when making choices about backgrounds and clothing.

In photography, the lights we use to illuminate our subjects contain red, green, and blue wavelengths. However, they are rarely in that perfectly equal balance that produces pure white light. Therefore, when considering the color of our images, we must also factor in the color temperature of the light emitted by our light sources. Color temperature is measured in degrees Kelvin (K) and provides a consistent way of describing the degree of “whiteness” of a particular light source.

On the Kelvin scale, daylight usually measures at 5500K. This is the same value to which all hot-shoe flashes and most studio light units are also rated. Light with

## HIGH KEY vs. LOW KEY

High-key images feature overall light and/or white tones. A high-key image typically conveys cheerfulness, purity, and softness in an image. If we look at the illustrations here, the image of bride Christina Caplan (**photograph 1-3**) would be considered high key; the background, dress, and overall tones in the image are light in tonal value.

**Photograph 1-4**, of Nicholette Sheridan, was shot on a white background—but the dress is dark in tone, so this is not a true high-key image.

Low key images are comprised of mainly dark tones throughout the image. A low-key image conveys strength, wisdom, and a dramatic mood. In **photographs 1-5** and **1-6**, you can see the differences between the two images. Can you feel the mood of each?



**PHOTOGRAPH 1-3.** A high-key image shot in the studio. *SUBJECT:* Christina Caplan. *CAMERA:* Nikon D300, 24–70mm, f/2.8 Nikon lens, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{125}$  second, f/16, ISO 200.



**PHOTOGRAPH 1-4.** While not strictly a high-key image (the tones of dress are dark relative to the background) this look would be good for fashion photographs. *SUBJECT:* Nicholette Sheridan. *CAMERA:* Nikon D300, 24–70mm, f/2.8 Nikon lens, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{250}$  second, f/6.3, ISO 200.



**PHOTOGRAPH 1-5.** This is a dramatic bridal portrait, but not a low-key image; the tone of her dress is lighter relative to the background. *SUBJECT:* Christina Caplan. *CAMERA:* Nikon D300, 24–70mm, f/2.8 Nikon lens, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{125}$  second, f/14, ISO 200.



**PHOTOGRAPH 1-6.** This is a traditional low-key portrait; all of the tones in the photograph are dark. *SUBJECT:* Nicholette Sheridan. *CAMERA:* Nikon D300, 24–70mm f/2.8 Nikon lens, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{250}$  second, f/6.3, ISO 200.



lower temperatures is considered redder or “warmer.” Light with higher temperatures is considered blue or “cooler.” This is seen in the chart below.

COLOR TEMPERATURES OF COMMON LIGHT SOURCES

Burning candle	1900K	<div>WARMER/ REDDER</div> <div>↑</div> <div>↓</div> <div>COOLER/ BLUER</div>
Halogen bulbs	3200K	
Photofloods (continuous light) and modeling lights	3400K	
Sunrise	4000K	
Fluorescent (cool white)	4500K	
Daylight	5500K	
On-camera flash	5500K	
Studio lights	5500K	
Computer monitor	5500–6500K	
Fluorescent (daylight)	6500K	
Open shade	8000K	

In most photographic situations, your aim is to balance the color of light to closely match daylight (or 5500K). This yields the most pleasing and natural rendition of color or white, especially for portraiture. With digital capture, I find the automatic white-balance (AWB) setting to be adequate in rendering most color temperatures and balancing most scenes to an acceptable “white.”

For precise results, color temperature can be measured with a color meter, such as the Sekonic C-500 (photograph 1-7). However, most photographers can work without one if they become familiar with the chart above. Simply understanding the color temperatures of the sources you will commonly encounter goes a long way toward understanding how to control and manipulate the light in your final images.

For example, if you know a light source is tungsten or incandescent, you can immediately adjust your camera’s white balance to tungsten and/or place a color-compensating filter over your light source for optimal light balance. Another option is to use a CBL (color balance lens). Held in front of the light source during white balance evaluation, the CBL (photograph 1-8) uses neutral points and prism technology to produce extremely accurate white-balance readings. This works especially well in mixed lighting conditions.

If we look at the two images selected as illustration, we’ll see that both were lit with tungsten light. **Photograph 1-9** is how the human eye would see the scene. **Photograph 1-10** is how the camera would record the scene if we were not correcting for the change in color temperature via the white-balance methods previously mentioned. Can you see how the color of the light is quite important?

**Brightness.** The second most important quality of light is the brightness. If the light illuminating your subject is not bright enough, no image will be recorded. Photographers measure and control the brightness of their light sources in several different ways.

*Reflected-Light Meters.* Your camera’s meter, a reflected-light meter, measures the light bouncing back to it from the scene or subject. It then averages the dif-



PHOTOGRAPH 1-7. Sekonic C-500 color meter. Photo courtesy of Mac Group.



PHOTOGRAPH 1-8. CBL lens (Color Balance Lens). Photo courtesy of International Supplies.com.

**PHOTOGRAPH 1-9.** *SUBJECT:* Gabriel Grier. *CAMERA:* Nikon D300, 24–70mm f/2.8 Nikon lens, Lexar media. *SETTINGS:* Tungsten white balance, manual mode,  $\frac{1}{160}$  second, f/8, ISO 200. *LIGHTING:* Tungsten (3200K).



**PHOTOGRAPH 1-10.** *SUBJECT:* Gabriel Grier. *CAMERA:* Nikon D300, 24–70mm, f/2.8 Nikon lens, Lexar media. *SETTINGS:* 5500K white balance, manual mode,  $\frac{1}{80}$  second, f/6.3, ISO 200. *LIGHTING:* Tungsten (3200K).



ferent levels of brightness and provides an appropriate shutter speed/aperture combination to record these “averaged” tones at a value of 18 percent gray. Unfortunately, unless your subject or scene actually consists of tones that average out to 18 percent gray (and few do), using your camera’s meter will not provide an accurate brightness rendition.

For example, if you are photographing a bride in a white dress, the reflected-light meter will see all the light tones from that dress and try to average it down to 18 percent gray—producing an underexposure (the dress will record as gray). Conversely, if you are photographing a groom in a black tuxedo, the reflected-light meter will see almost no light bouncing back from the fabric and try to average it up to 18 percent gray—producing an overexposure (the tuxedo will record as gray). This becomes tricky at best when both extremes (black tuxedo and white dress) appear side by side in an image. To record accurate tones, you will have to compensate via your exposure settings—using settings other than those suggested by the meter.

**Incident-Light Meters.** A more accurate method is to measure the brightness of a scene using an incident-light meter. Incident-light meters measure the light falling on the subject—the actual light values in the scene, regardless of the subject being photographed. In the bride and groom example, recording the light “falling on” the subjects will ensure that you record the white dress as white and the black tuxedo as black.

In my opinion, the most accurate rendition of the scene can be obtained using a hand-held meter such as the Sekonic 758DR (**photograph 1-11**). Most hand-held meters have a white dome attached to the front that gives you a 180-degree angle of view. Additional attachments could include a flat sphere that can replace the dome for reflected-light readings of a scene. (For example, you might want to use the flat sphere to take a reflected-light reading of a background to determine its value relative to the subject brightness.) A hand-held meter is essential when using a variety of light modifiers and light sources in a creative fashion that we’ll discuss more later. The brightness of a scene will not only determine the exposure, it will also set the mood—or “key”—of your image (see page 19).

**Contrast.** Contrast describes the difference in brightness between the highlight and shadow areas of a photograph. This can be controlled by subject placement, light placement, and the use of light modifying tools and techniques. Just as the clouds in the sky control the relative contrast of the sun, you can actively control the contrast within an image in the studio. The contrast in an image refers to the difference between the rate of transition of the highlights and shadows in an image. The contrast of an image can be controlled several ways. Through intentional exposure manipulation, an image that is underexposed will have a lower contrast than an image that is overexposed. The most common way to control contrast is with the use of light modifiers, thus producing images that portray hard or soft light.

**Specularity vs. Diffusion.** The size of your light source relative your subject will determine the specularity and diffused light qualities of your image. This will be determined both by the physical size of the source itself and its distance to the



**PHOTOGRAPH 1-11.** Sekonic 758DR light meter. Photo courtesy of Mac Group.

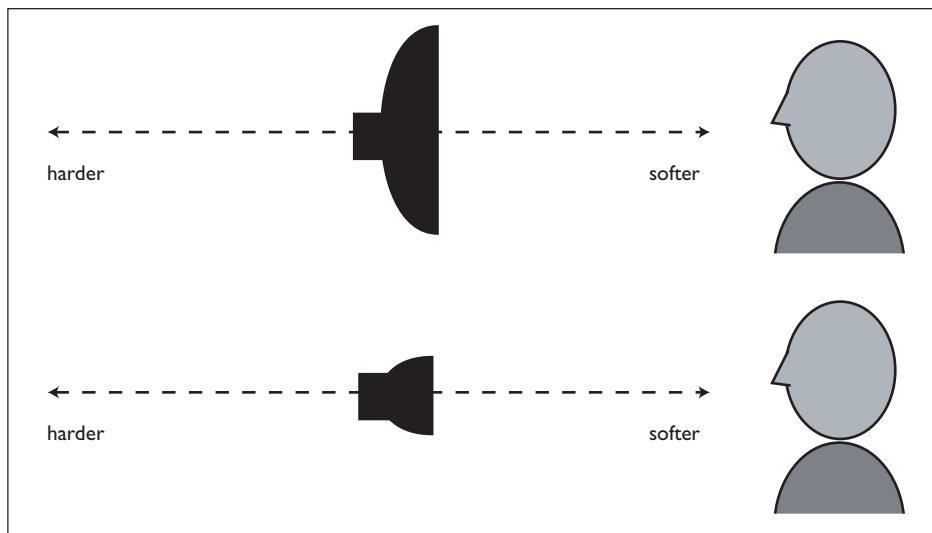


**PHOTOGRAPH 1-12 (RIGHT).** A selection of soft modifiers from Hensel USA. From left to right, we see: a white umbrella; a softbox; and a 22-inch white beauty dish (the center white plate can be removed and grids can be attached to produce a hard, directional center spot).

**PHOTOGRAPH 1-13 (BELOW).** Grids, snoots, and barn doors, considered “hard” modifiers, are essential for directing your light source. The brushed silver beauty dish (seen at the far left) is a new product from Hensel USA that produces specular beauty lighting. Continuing to the right, we see: a parabolic reflector; a grid attached to a 7-inch parabolic; a grid with four-sided barn doors; and a snoot.







**DIAGRAM 1-6.** As a light source is moved farther from a subject, the light source gets smaller in relation to the subject. Therefore, the light appears more specular. Conversely, as a light source is moved closer to a subject, the light from it appears more diffuse.

subject. The closer a light source is placed to a subject, the larger it will be in relation to the subject (resulting in a more diffused light quality). The farther a light source is placed from a subject, the smaller it will be in relation to the subject (resulting in a more specular light quality). Specularity and diffusion are subjective qualities and help to create the mood of your photograph.

*Specular Light.* Specular (also called “hard”) light is derived from using a smaller light source relative to the size of your subject. Smaller light sources cast hard, directional shadows that yield high contrast in your image. For example, on a cloudless day the light from the sun is specular (even though the sun is a massive light source) because it is very far from your subject.

*Diffused Light.* Diffused (also called “soft”) light is derived from a light source that is large relative to the size of your subject. Large light sources create soft shadows and a wrap-around lighting quality. On a cloudy day, the clouds become the light source. Even though they are actually smaller than the sun, the clouds are much closer to your subject. Therefore, they function as a huge light source and cast softer light on your subject. There are many modifiers that produce diffused lighting.

Keep in mind that the mere attachment of a soft diffuser (light modifier) over a light source is no guarantee that the lighting on your subject will be soft; positioning the light correctly is also critical. If you place a large softbox close to

your subject, the light will appear softer than if you placed it farther from your subject. The same is true when using a parabolic reflector. If you place a parabolic reflector as a main light close to your subject, the light will appear softer than if it were placed farther from the subject.

Let’s take a look at the two following images. **Photograph 1-14**, a portrait of singer Siesha Torres, is a good illustration of an image lit with hard light. The main light was a 7-inch parabolic with a 30-degree attached. This was placed behind and to the model’s left. The light was small and farther away from the model, creating sharply defined shadow-to-highlight transfers. The fill light, a medium softbox, was placed approximately ten feet from the model (to camera right) as fill. An additional small strip softbox, placed approximately 90 degrees to Siesha’s right, and ten feet back, produced harder-looking light. As seen in **Photograph 1-15**, moving the medium softboxes five feet closer to the model and adjusting Siesha’s pose created a soft transition of highlights to shadows. A reflector filled the shadows. Can you see the difference?

### MAINTAIN THE EXPOSURE

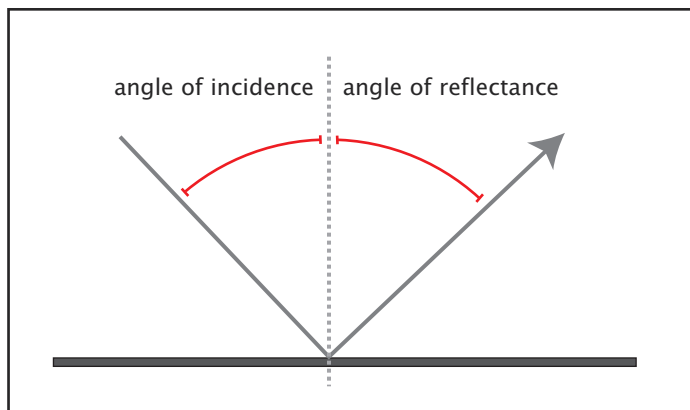
When you change the distance of a light to your subject, you must remember to remeter to maintain an accurate exposure and adjust the power setting or f-stop accordingly.

**PHOTOGRAPH 1-14.** This portrait illustrates specular lighting. Notice that the contrast from highlight to shadow is great. *SUBJECT:* Siesha Torres. *CAMERA:* Nikon D200, 28–105mm f/3.5 Nikon lens, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{250}$  second, f/11, ISO 200.



**PHOTOGRAPH 1-15.** Moving the softboxes closer to our subject creates soft edge transfers from shadow to highlight. *SUBJECT:* Siesha Torres. *CAMERA:* Nikon D200, 28–105mm f/3.5 Nikon lens, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{250}$  second, f/11, ISO 200.



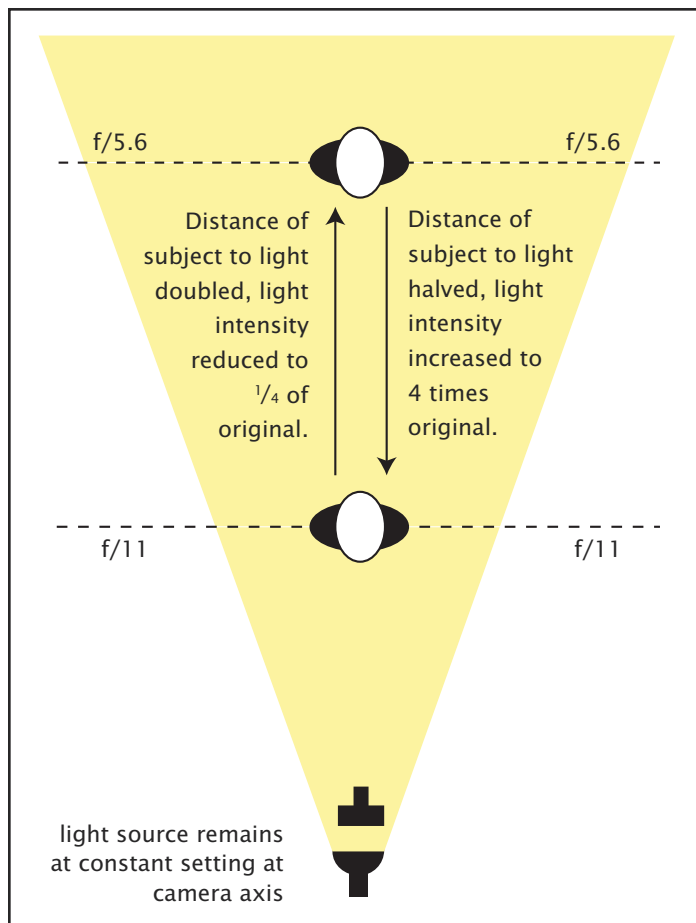


**DIAGRAM 1-7.** Light travels in a straight line. When it strikes a surface, the angle of incidence equals the angle of reflectance. This concept is key to lighting your images successfully.

**Direction.** The placement of the main light source relative to the subject is another controlling yet subjective factor in the quality of the light in your final portrait. Light travels in a straight line, and when it strikes a surface, its angle of incidence is equal to its angle of reflectance. For example, with front lighting, the light is directly at or behind the camera, producing a zero-degree angle of incidence and thus a zero-degree angle of reflectance. The result is flat lighting—an image that has no distinct transitions from shadow to highlights. For example, if the light source is moved 45 degrees to the left or right, off the lens axis, it will reflect back at the same 45-degree angle. This concept is important when positioning your light and modifiers to show shape and create depth on your subject.

### THE INVERSE SQUARE LAW

Understanding the Inverse Square Law is very important to becoming skilled in the art of photographic lighting. This law describes how a change in the distance of the light source to the subject will change the intensity of the light on the subject. The Inverse Square Law states that when the distance of the light to the subject doubles (2x the distance), the light on the subject will be reduced to  $\frac{1}{4}$  of its original intensity—because the inverse square of 2 is  $\frac{1}{4}$  ( $1/2^2$ ). This means that when you change the distance of the light to the subject, the exposure (or the output of the light) must be adjusted to compensate.



**DIAGRAM 1-8.** The Inverse Square Law. If you move your subject from 3 feet to 6 feet from the main light, you'll need four times the amount of light to arrive at the same exposure—two full stops more light. The beam of light widens as it travels farther from the source; because it illuminates a broader area, the light becomes less intense.



## 2. STUDIO LIGHT MODIFIERS

We'll look at hot-shoe flash modifiers and their use in the second half of the book. First, though, let's concentrate on modifiers for studio. We already looked at some common modifiers used in a studio setting, but **photographs**

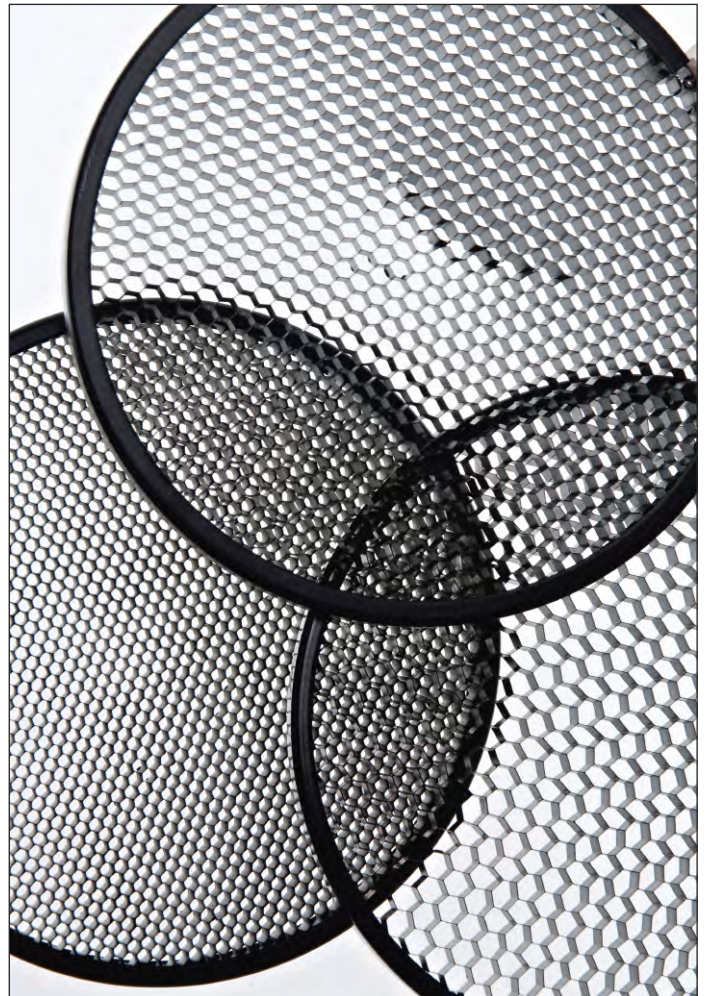


**PHOTOGRAPH 2-1.** Softboxes come in many different shapes and sizes to fit your photographic needs. Some, like the large Hensel softbox (left), come with gobo attachments to create more direction in your light (gobo not pictured).



**PHOTOGRAPH 2-2.** The Don Jones Photography modifier wall shows a vast array of hard and soft modifiers—grids, parabolic reflectors in varied sizes, gobos, flags, and more. Photograph courtesy of Don Jones Photography.

2-1 through 2-5 show additional modifying tools that you can easily use to create different looks in your photographs. Though not pictured, gels (both color and neutral density) are also considered modifiers. Keep in mind that the modifiers shown are my personal modifiers of choice; many different manufacturers offer similar products that may suit your needs.



**PHOTOGRAPH 2-3.** Grids direct and concentrate your light source. Here we see a variety of 7-inch Hensel grids: 20-degree (bottom left), 30-degree (top), and 40-degree (bottom right).





**PHOTOGRAPH 2-4.** California Sunbounce reflectors come in many sizes and colors—silver, gold, zebra (mixed silver and gold), transparent, and black. From back to front, we see a white translucent scrim, a black subtractive gobo, a zebra mini reflector, and a micro-mini silver reflector.



**PHOTOGRAPH 2-5.** Gobos (short for “go between”) go between a light source and the subject to block light from illuminating it. These come in different sizes and can be attached to light stands. Here, from back to front, we see a Sunbounce black gobo; a circular cutter (a semi-transparent device, available in varying densities, used to reduce the intensity of your light source); a circular gobo; and a small, rectangle flag (a device that blocks a portion of the light from hitting your subject).

## LIGHT MODIFIER EFFECTS

There are as many light-shaping modifiers as there are applications for their use. Each is designed to produce certain lighting effects in your images. This can be confusing. To shed some light for you, though, I'll show you my favorite modifiers—ones that produce a quality of light that works well with my photographic needs. Keep in mind there is no set formula as to which modifier you use. In fact, as you become more comfortable, you'll start using a number of modifiers in your images, creating your particular style of lighting. Later in the book you'll see how you can change your look by simply changing modifiers.

I felt using a human subject with different facial expressions would distract from the learning experience. Therefore, I chose this lifelike mannequin—whom I affectingly named Shirley, in homage to Kodak and their color-calibration tools of years past. As you study the effects of each modifier and the quality of light it produces, notice how the background illumination is affected. The model remained 5½ feet from the background. The main light remained approximately 3½ feet from the model, placed slightly above camera height at a 45 degree angle to her face.

It is important to be aware that each modifier illustrated produces its own field of light (see page 35); that is the amount of light that affects your final photograph. All the images of Shirley were initially metered using my Sekonic 759DR meter set to record an incident-light reading (**pho-**

**tograph 2-6**). I find it beneficial to place the dome of the meter facing the light source. Another method of incident-light metering is placing the meter under your subject's chin, with the dome facing the camera. Both techniques work well and are essential to obtain correct exposure. In most instances the exposure remained the same and in others it was necessary to re-meter to obtain a proper exposure.

All of the images in this sequence were lit using a single Hensel Integra 500 monolight, fired using Pocket Wizard remotes (**photograph 2-7**). They were shot with a Nikon D-300 camera with a Nikkor 24–70mm f/2.8 lens and recorded using Lexar media cards.

As you study the examples of my very patient model, you will be able to see some extreme and subtle changes from one modifier to another. Becoming familiar with the quality and field of light each modifier produces will enable you to quickly choose the modifier that will work best for any image you choose to photograph. In most cases, you will notice that the exposure remained the same even when the modifiers were changed; as much as possible, I changed only the quality of the light via different light modifiers. (*Note:* Typically, you would study the lighting used by examining the catchlights in your subject's eyes. Shirley's catchlights, however, are painted on the mannequin's face and do not show the actual reflections of the lights used.)



**PHOTOGRAPH 2-6.** Using a Sekonic 758DR incident light meter, I measured the amount of light falling on the subject.



**PHOTOGRAPH 2-7.** Pocket Wizard wireless remotes.





**PHOTOGRAPH 2-8.** With barebulb only, notice the hard edge transfers. If you look at the background, there is quite a bit of illumination contaminating it; the field of light produced by the barebulb is great and will add illumination to the background. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/9, ISO 200.



**PHOTOGRAPH 2-9.** Using a 7-inch reflector (with a brushed silver lining) the image is of a higher contrast than with the barebulb. The reflective silver used inside the reflector causes this. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/9, ISO 200.



The barebulb scene set.



The 7-inch reflector set scene.





**PHOTOGRAPH 2-10.** Here, I used Hensel barndoors with the four flags open. There's not a lot of difference because the flags are not blocking any of the light from hitting Shirley. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/9, ISO 200.



**PHOTOGRAPH 2-11.** The top and bottom barndoors are closed to block the light illuminating the top and bottom portions of the model. The background appears darker; no contamination (spill) from the light reaches it. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/9, ISO 200.



The barndoors set scene.



The barndoors set scene with the top and bottom barndoors closed. This creates more directional, concentrated lighting.





**PHOTOGRAPH 2-12.** Closing the left and right barndoors allows only a small amount of light to pass through the modifier. Notice that the shadow on the model's right cheek (camera left) appears deeper. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/9, ISO 200.



**PHOTOGRAPH 2-13.** When a snoot is attached, the light source becomes smaller and more directional, creating very hard, defined shadows and more contrast in the image. Notice that the background receives no illumination and records darker than in the previous examples. Snoots are ideal for kicker lights or for simple images with a more dramatic feel. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/9, ISO 200.



The barndoors set scene, with the left and right barndoors closed.



The snoot set scene.





**PHOTOGRAPH 2-14.** A 22-inch Hensel beauty dish with a white center reflector creates soft edge transfers from highlight to shadows. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/9, ISO 200.



**PHOTOGRAPH 2-15.** On the 22-inch Hensel beauty dish, the white insert can be replaced with a grid for a soft center-spot effect. Here, a 40-degree grid was used over the light tube for a very dramatic look. The light is soft, yet the center of the model's face has a concentrated, directional quality. It's very dramatic. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/9, ISO 200.



The beauty dish set scene.



The beauty dish set scene with a 40-degree grid.



**PHOTOGRAPH 2-16.** For further softening, a white “sock” (diffuser) was placed over the outer area of the beauty dish. This works well when you want less contrast and a smooth highlight to shadow transition. Notice that the background also receives less light. (I don’t use this setup often, as it can overheat the monolight.) *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/9, ISO 200.



**PHOTOGRAPH 2-17.** The grid was replaced by the white reflector insert. Then, the white “sock” diffuser was repositioned over the beauty dish. Notice how changing the insert creates a totally different quality of light on the subject—very soft. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/9, ISO 200.



The beauty dish set scene with a 40-degree grid and a sock.



The beauty dish set scene with the white reflector insert and a sock over the dish.



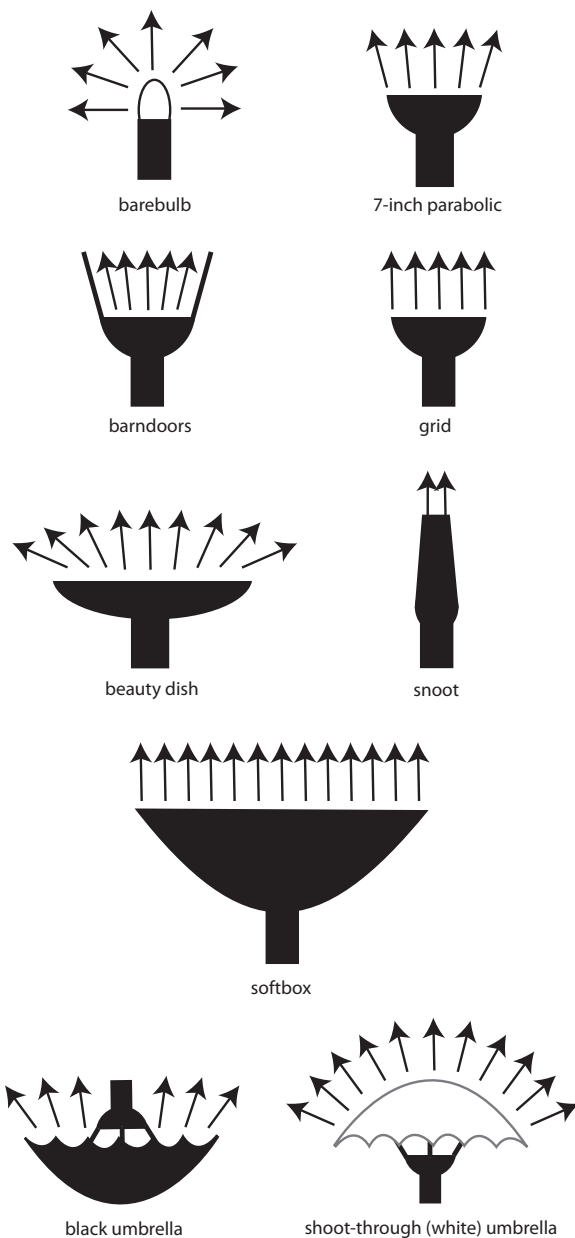


**PHOTOGRAPH 2-18.** A small Hensel softbox was attached, for even softer edge transfers on the facial mask. (Note: to accommodate the depth of the softbox, the light was backed up to 6½ feet and raised 2½ feet. *SETTINGS:* AWB, manual mode, 1/60 second, f/9, ISO 200.



The softbox set scene.

## FIELDS OF LIGHT FOR COMMON MODIFIERS







**PHOTOGRAPH 2-19.** A 40-degree grid placed inside a 7-inch Hensel reflector. As you study the effects of the grids, note that the field and direction of light changes—but not the exposure. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/9, ISO 200.



**PHOTOGRAPH 2-20.** A 30-degree grid placed inside a 7-inch Hensel reflector. The size of the light source reduces with the size of the grid. Notice the background gets darker. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/9, ISO 200.



**PHOTOGRAPH 2-21.** A 20-degree grid placed inside a 7-inch Hensel reflector. Again, the smaller the grid degree number is, the more directional the light will be. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/9, ISO 200.

## TRANSLUCENT SCRIMS

When using a light panel or translucent scrim, the field of light and quality of light is determined by the modifier used on your light and the distance of the light from the scrim. In the following examples, I chose to use a standard 7-inch parabolic that has a narrower field of light than would have been achieved if I had placed, for example, a 16-inch parabolic on the light. A 16-inch parabolic would have increased

the field of light covering the scrim to approximately twice the area of a 7-inch parabolic. The difference between a panel scrim and a softbox is your ability to change the field of light hitting your subject by moving your light source closer to or farther from the panel and by your choice of flash modifiers.



**PHOTOGRAPH 2-22.** A white fabric scrim was placed between Shirley and a Hensel Integra 500 monolight to produce soft, diffused lighting on the model. The scrim was 3½ feet from subject and the light was 3½ feet from the scrim. *SETTINGS:* AWB, manual mode, 1/60 second, f/5, ISO 200.



**PHOTOGRAPH 2-23.** Here, the monolight was moved closer to the scrim, which made the field of light smaller relative to the subject, producing more specular, hotter illumination on the model. *SETTINGS:* AWB, manual mode, 1/60 second, f/5, ISO 200.



The scrim set scene.



Set scene for light placement relative to a light panel. The light is positioned inches from the scrim.





**PHOTOGRAPH 2-24.** Shirley was illuminated with a 42-inch translucent shoot-through umbrella. The large field of light produced by large umbrellas is ideal for photographing large groups. Notice the background records lighter as there is more light spilled onto it. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/6.3, ISO 200.



**PHOTOGRAPH 2-25.** A 32-inch white umbrella was placed about  $3\frac{1}{2}$  feet from the subject at a 45-degree angle. The black material on the outside of the umbrella ensures the light is contained within it. This umbrella produces a larger field of soft light that illuminates the background. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/7.1, ISO 200.



Set scene with white umbrella.



The umbrella set scene.





**PHOTOGRAPH 2-26.** The shape and size of a softbox determines the field of light it produces. Here, a large Hensel softbox with two layers of diffusion material on the front was placed close to the model for soft lighting. I rarely use a softbox of this size, but it comes in handy when photographing a large family. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/4.5, ISO 200.



**PHOTOGRAPH 2-27.** This was created at the same exposure as the previous image. The only difference was the attachment of fabric gobos that transformed the large softbox into a strip light (with a 6-inch wide opening). Notice the more defined contrast. There is no apparent spill into unwanted areas, such as the background. *SETTINGS:* AWB, manual mode,  $\frac{1}{60}$  second, f/4.5, ISO 200.



Set scene with a large Hensel softbox.



Set scene with large softbox goboed to perform as a strip light.

## 3. STUDIO MODIFIERS IN ACTION

Now that you are familiar with the effects of studio modifiers and the field of light each produces, it's time to put them to use. The following sets of images were created to show how merely changing the modifier on your lights will change the overall look of your images. Being able to quickly change the look of your portraits will certainly increase your sales and diversify your photos.



Most people are not comfortable in front of a camera. Therefore, it is best to start with traditional lighting and move gradually into more dramatic styles. Some people may prefer traditional portraits; others will be excited about experimental ones. As your session progresses, you and your client will become familiar and more comfortable with each other, enhancing the creative process.

I had photographed Seiha No for her senior portraits a few years back, so I was pleased to get a call from her to create images for her modeling portfolio. Seiha and I discussed clothing selection before our session and she came prepared. Seiha wanted a mature, sassy look for her portrait session.

For **photograph 3-1**, I chose a 22-inch Hensel beauty dish as the main light; I desired a soft feel for the image, as this young lady has very soft, delicate features. Notice that Seiha's body is angled away from the main light to retain a feminine look. The background light consisted of a small softbox placed just behind and to the right of the model. The softbox was slightly feathered toward the background to illuminate it. An additional monolight was placed behind the model to her left. The kicker, or hair light, was fitted with a 40-degree grid that produced a direct source of light on Seiha's hair, adding separation and a beautiful hard-edged accent on her left cheek.

For **photograph 3-2**, Seiha changed her wardrobe while I placed an additional light at approximately 45 degrees to camera left. This small 6-inch strip light, attached to a monolight, was placed at a lower angle to add fill on the model's legs. The strip light was ideal because it pro-



**PHOTOGRAPH 3-1.** This is a traditional portrait that shows shape and depth. Remember to turn a woman's body away from the main light to slim her figure. *SUBJECT:* Seiha No. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{100}$  second, f/11, ISO 400.

### BEFORE THE SESSION

Set your camera to the manual mode, meter all your lights, and adjust the lights to your taste before each session. Then fine-tune the lighting as you go.





**PHOTOGRAPH 3-2 (LEFT).** An additional strip softbox was added to fill the shadows on Seiha's right leg. *SUBJECT:* Seiha No. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{100}$  second, f/11, ISO 400.

**ABOVE:** Set scene for **PHOTOGRAPHS 3-1** and **3-2**.

**PHOTOGRAPH 3-3 (FACING PAGE).** To create this dramatic look, a 30-degree grid was placed inside the beauty dish for the main light. The fill light was turned off. *SUBJECT:* Seiha No. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{100}$  second, f/11, ISO 400.

duced soft, directional light that closely matched the main light—without any light contaminating the background or foreground. (*Note:* If you only have three lights, the light on the right of the model could easily be replaced with a reflector to achieve a similar look. It is not always the amount of equipment, it's how you choose to use it.)

To create the simple yet dramatic effect seen in **photograph 3-3**, the strip/fill light was turned off. For the main light, a 30-degree grid was placed inside the 22-inch Hensel beauty dish, creating this soft yet very directional center-spot beauty portrait. No exposure adjustment was needed. In my opinion, the Hensel beauty dish and grids are the most versatile of all light modifiers; to me, they are indispensable.







## A VARIETY OF LOOKS

The next series of images was created for Sarah Jarvela, an aspiring model. The concept of the shoot was to create three different personalities in a one-hour session. I chose to start with a strong headshot using a traditional four light setup (**photograph 3-4**). To obtain a pure white background, the model was positioned close to the white background so the lights illuminating the set would also illuminate the background. (Incidentally, the background lights were adjusted

to record  $1\frac{1}{2}$  stop brighter than the main light, ensuring a clean white background.) Two side kicker/accent lights, both fitted with directional grids, were placed just behind Sarah to create very hard, directional accents on the sides of her face. The main light was a medium softbox, placed high on a boom stand at a 45-degree angle to camera right, high and above the camera axis.

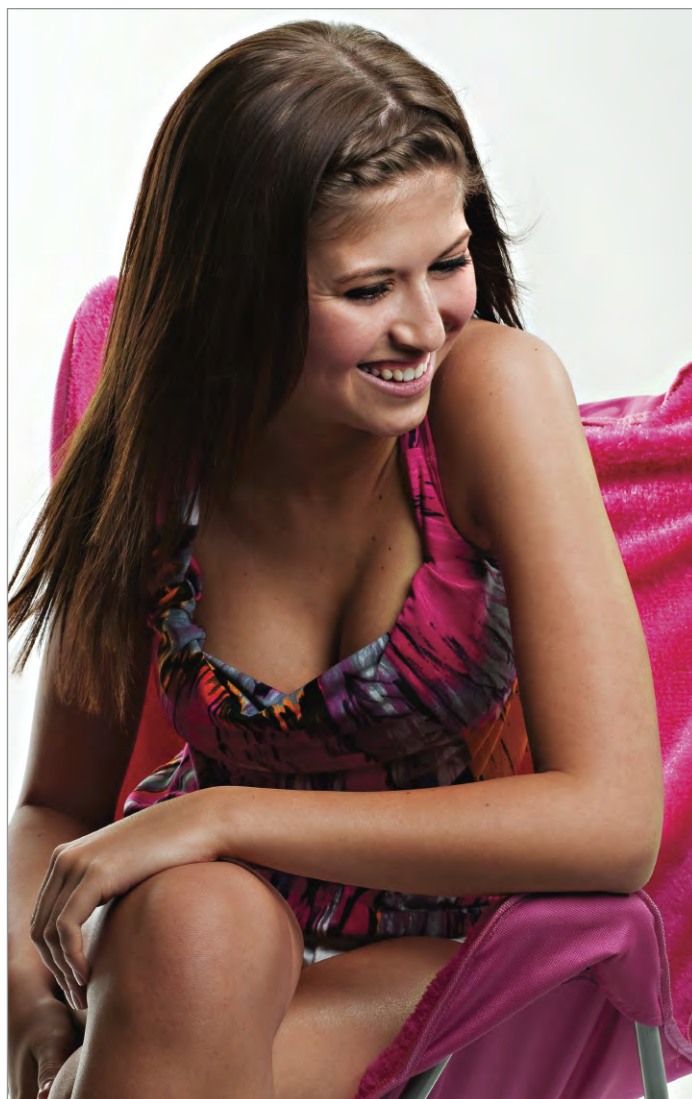
For **photograph 3-5**, I simply powered down the two accent lights to the right and left of the model, moving them further from the middle of the background. Additionally, the model was moved farther from the background to ensure a crisp, neutral gray background. Remember the Inverse Square Law!

The funky pink chair seen in **photograph 3-6** had sat in my prop room for quite some time just waiting for the right session. Sarah's choice of pink clothing proved to be the perfect pairing. With the same main light (a medium softbox) attached to a boom stand, placed close to the model and pointed down, the light was very soft. Two softboxes, attached to monolights, were used as kickers—so the light accenting the model was also soft and diffused. The light on Sarah's right leg came from a small strip softbox. Lastly, the background lights were turned on. The model was quite pleased with all the images she received and was surprised how different they all appeared in such a short session.

**PHOTOGRAPH 3-4.** This headshot was created using hard-edge double kickers. *SUBJECT:* Sarah. *CAMERA:* Nikon D300, 24–70mm f/2.8 lens, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{100}$  second, f/20, ISO 200.







**PHOTOGRAPH 3-5 (TOP LEFT).** The accent lights were turned off to create a simple photograph of Sarah. *SUBJECT:* Sarah. *CAMERA:* Nikon D300, 24–70mm f/2.8 lens, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{125}$  second, f/16, ISO 200.

**PHOTOGRAPH 3-6 (TOP RIGHT).** Changing to a 80–200 f/2.8 lens compressed this image nicely. A kicker was also added to the right of the model for increased separation. *SUBJECT:* Sarah. *CAMERA:* Nikon D300, 80–200mm f/2.8 lens, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{100}$  second, f/16, ISO 200.

**RIGHT:** Set scene.



## DRAMATIC LIGHTING

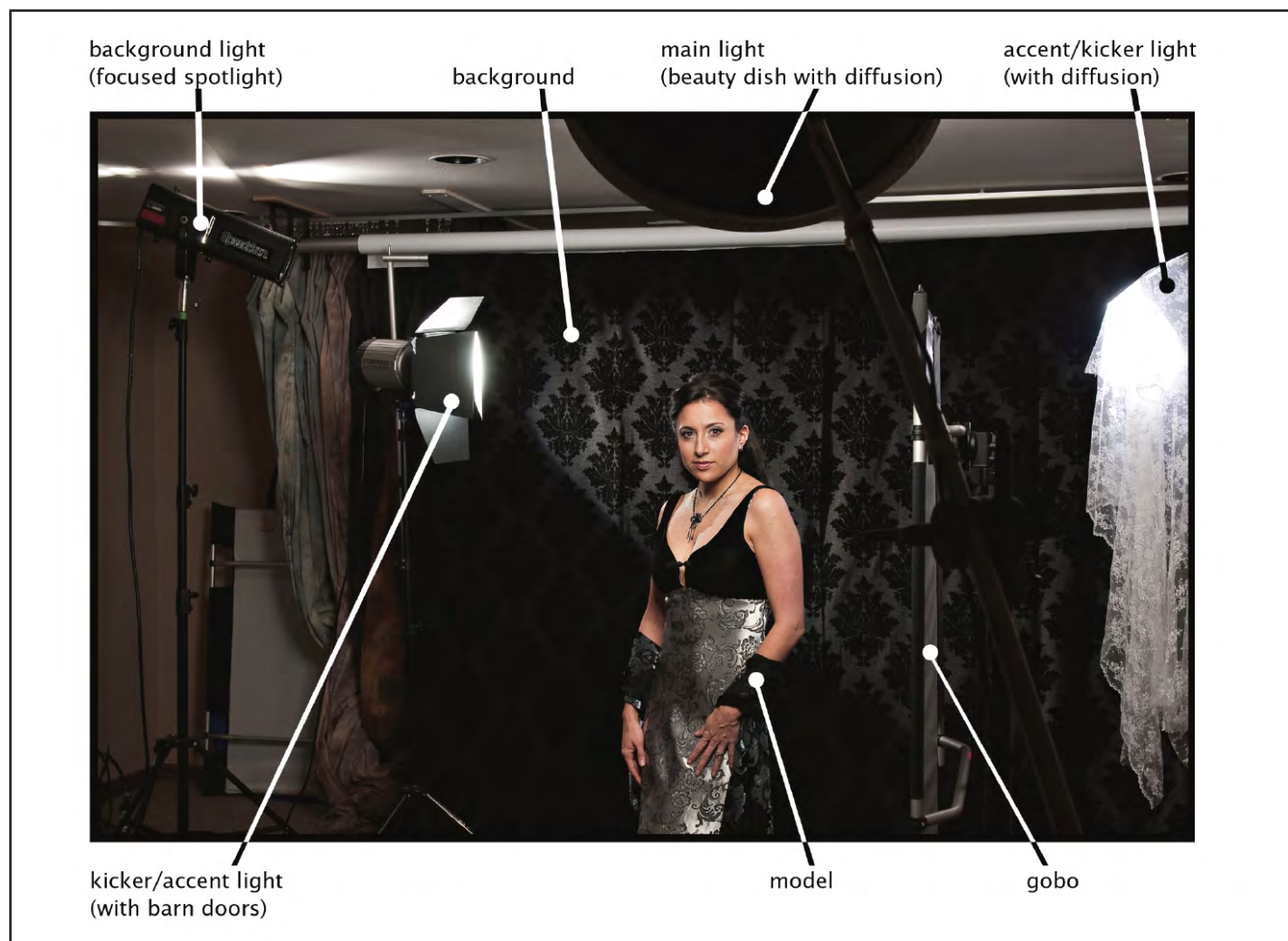
Staying updated with the latest photography equipment, props, and techniques is essential to creating fresh images. On a recent trip to Photo Plus Expo in New York City, I fell in love with Drop it Modern backgrounds ([www.dropitmodern.com](http://www.dropitmodern.com)). One of their unique, custom fabric backgrounds proved to be perfect for the next set of images, shot for my friend Michelle Lopez.

The background, made of heavy fabric with black velvet patterns, absorbed a tremendous amount of light. To illuminate it, a Speedotron focusable spotlight was used with custom cookies/gobos designed by Colorado Custom Metal (**photograph 3-7**) ([www.coloradocustommetal.com](http://www.coloradocustommetal.com)). The focusable spot, attached to its own 1200W power pack, produces intense, direct light that allows cookies to be placed between the modeling light and the lens for special effects.

For **photograph 3-8**, the main light was a single Hensel Integra monolight with a 22-inch silver beauty dish and white diffusion sock attached. Two kickers/accent lights with 7-inch parabolics and barndoors were placed to the left and right of the



**PHOTOGRAPH 3-7.** The Speedotron focusable spotlight can be used with a custom cookie (here, flowers) to produce designs on backgrounds or for special effects.



Set scene for **PHOTOGRAPH 3-8**.





**PHOTOGRAPH 3-8.** Kickers to either side of the model added separation and depth. Notice that the lights were modified with barndoors to control the light illuminating the subject *SUBJECT:* Michelle Lopez. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{125}$  second, f/6.3, ISO 200.



**PHOTOGRAPH 3-9.** This is the same lighting setup as in the previous photo—except the light with the barndoors (to camera left) was positioned closer to the subject to become the main light. The Speedotron spotlight was turned off and the right kicker repositioned to the pose. *SUBJECT:* Michelle Lopez. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{125}$  second, f/8, ISO 200.

model to add further separation and depth. These were set to record at one stop more than the main light. As you can see in the set scene, the camera-right kicker was further diffused with a white scarf. The barn doors on the other kicker were closed to create a more directional light source.

**Photograph 3-9** was created by turning off the main light (the beauty dish) and the focusable spot. I also changed the model's position and moved the monolight with the barndoors (to camera left) higher and closer to the model. This became my new main light. An incident-light reading was taken and the exposure adjusted accordingly. Just by moving

a couple lights and changing the model's pose, I produced a very different photograph in one session. Try to think outside of the box and you'll be amazed how your style will change.

## FROM PORTRAIT TO GLAMOUR



**PHOTOGRAPH 3-10 (LEFT).** This is a traditional headshot—though lit differently than my normal style. It is great to mix up your lighting techniques. *SUBJECT:* Pam Solman. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{200}$  second, f/8, ISO 200.

**ABOVE:** Set scene for **PHOTOGRAPH 3-10**.

This series, featuring Pam Solman, illustrates how quick thinking can create images that will wow your clients. Ms. Solman desired several different photos from our session: a headshot, a full-length portrait, and a sassy glamour photo. My studio is small and proves challenging when trying to produce certain lighting in my images; therefore using a translucent light panel/scrim is quite effective—especially for shooting full-length images.

For **photograph 3-10**, the main light was an Integra mono-light with a 7-inch parabolic reflector positioned behind a large scrim. For soft, directional accent light, a large Hensel

softbox, fitted with a strip gobo, was placed to camera left and worked beautifully as an accent light. Your client's hair color is the key to which modifier to use; Pam had very light hair, so using a hard modifier as an accent light would have overexposed her hair, creating a "harder"-looking portrait. The entire scene was filled with a medium softbox placed behind the camera.



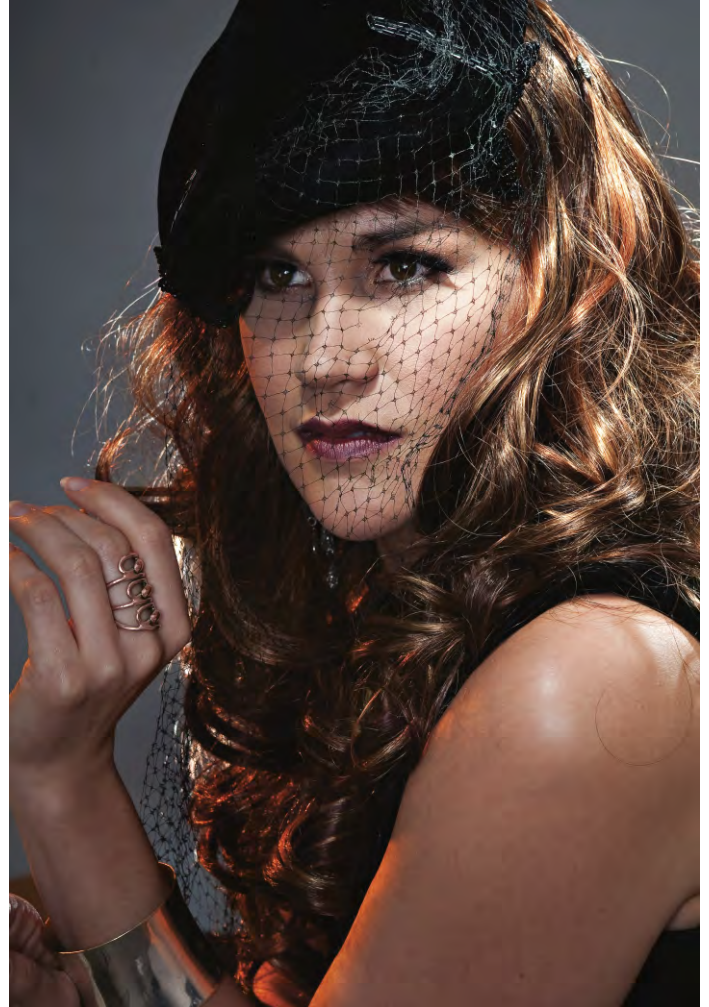
To create a glamour portrait (**photograph 3-11**), I quickly set up a black velvet background and added a few props—as well as an additional accent light to Pam’s left. This single mono-light, used to direct the light onto Pam’s hair, was fitted with barndoors (to stop spill on the background), a 40-degree grid, and a white diffusion sock. The addition of this light, powered to record brighter than the main light, added to the fashion/glamour mood desired for this image. Keep in mind that my main light and fill light remained the same as in the previous set scene.

**PHOTOGRAPH 3-11.** A simple change of background and clothing was coupled with great posing and the addition of one light to create this striking photograph. Notice that my exposure did not change from the last image. *SUBJECT:* Pam Solman. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{200}$  second, f/8, ISO 200.

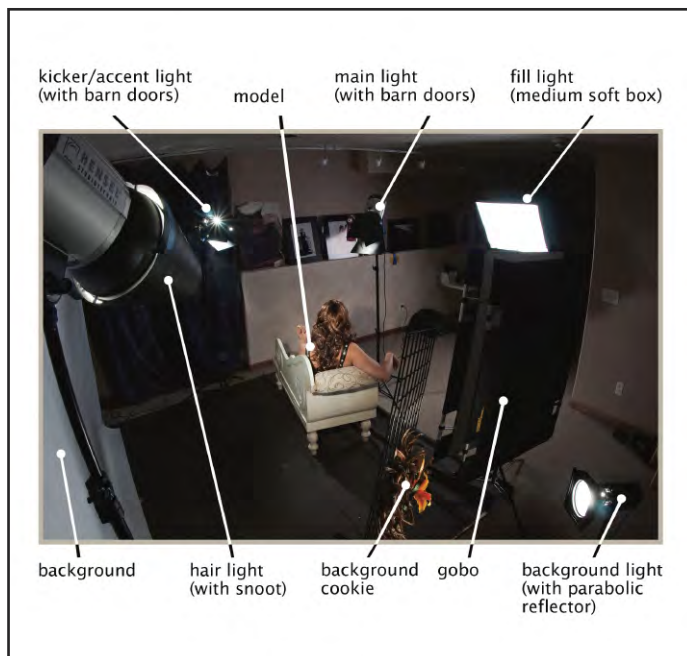




**PHOTOGRAPH 3-12.** Notice the design on the background. *SUBJECT:* Aléna Watters. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{200}$  second, f/13, ISO 200.



**PHOTOGRAPH 3-13.** Classic Hollywood-style lighting cannot be achieved without barndoors and snoot modifiers. *SUBJECT:* Aléna Watters. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{200}$  second, f/9, ISO 200.



Scene set for **PHOTOGRAPH 3-12**, looking from back to front.



Scene set for **PHOTOGRAPH 3-13**,



## HOLLYWOOD LIGHTING

Moving forward, our images will become progressively more challenging as many different light modifiers are used. When you incorporate snoots and barn doors, please note that it is very important to meter every light to ensure you will obtain the desired effect at your chosen exposure.

I recently became reacquainted with the old Hollywood style of lighting while attending a seminar given by Ken Cook (PPA Master Photographer). I also read several books on the technique and decided to give it a shot with the minimal equipment I had in my studio. Aléna proved to be a great subject. A friend and Broadway singer/dancer, Aléna was in town for only a short period of time when she commissioned me to create her images. Therefore, a variety of images needed to be created relatively quickly.

The first image of Aléna Watters (**photograph 3-12**) was created using a five-light setup. The concept was to create a classic portrait before we moved onto more edgy Hollywood-style lighting. First, a medium softbox was placed behind the camera and metered to evenly illuminate the entire scene, acting as an overall fill light. To camera left, a monolight, fitted with a 7-inch parabolic, was placed at a low angle to illuminate the makeshift cookie (which created the pattern on the background). Underexposing the white background relative to the subject ensured that the background design would be visible. Be patient; this technique is tricky.

If you look at the set scene, you can see a snoot was placed high and behind the model to separate her from the background. Then, a second monolight was placed high and 45 degrees off the camera axis, shining onto the left side of the subject (camera right). Hensel barn doors were used on this light to control the width of its beam (or field of light). The last Hensel Integra 500, again with barn doors, was placed high (pointing down onto Aléna's facial mask) at a 45 degree angle to the camera. This was the main light, which produced a soft, pleasant lighting pattern on her face.

As our session progressed, we continued with the same lighting setup—although the main light (a 7-inch parabolic with barn doors) was moved to camera left and closer to Aléna's face. Because the barn doors were also closed, to produce a smaller field of light, the exposure was recalculated. (*Note:* Moving a light source closer to the the subject will increase exposure.) Warmth was also added by placing a

Rosco amber gel over the snooted kicker light. The lighting pattern on Aléna's face—coupled with the vintage clothing, wig, and dramatic makeup—produced a great example of old Hollywood-style portraiture (**photograph 3-13**).

Adding a background light covered with a yellow gel gave **photograph 3-14** yet another look. To achieve similar results, you must have barn doors that will allow you to block some light and direct your desired light pattern on specific areas of a scene.



**PHOTOGRAPH 3-14.** Modifying your lights with gels is a simple way to change up your images. *SUBJECT:* Aléna Watters. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{200}$  second, f/11, ISO 200.







## OLD HOLLYWOOD MEETS CONTEMPORARY

As our shoot progressed (see previous two pages), Aléna was thrilled to take off the scratchy wig—and excited about making images for her yoga website ([www.yogaforthesoul.com](http://www.yogaforthesoul.com)) and updated headshots for calling cards to promote her singing/dancing career.

To create a peaceful mood for **photograph 3-15**, I placed a medium softbox high on a boom. This acted as a fill light—a soft, even source of illumination for the entire scene. Two additional monolights were placed just behind the model, to her left and right, creating the depth necessary for this image. Both 7-inch parabolics were fitted with grids to control the field of light. To create the main light pattern on Aléna's facial mask, a monolight was fitted with barndoors and placed high and to camera left. Because the light appeared too hard, I simply placed white diffusion material over the barndoors, creating a serene image that was used on her yoga home page.

To create a casual, contemporary image for Aléna (**photograph 3-16**), the same main light as in the previous image was moved closer to the subject, but still placed at a high enough angle to ensure nice shadows on her face. The diffusion material (used in the previous image) was then removed to create a bolder look. Additionally, the background light to camera left (minus the warming gel) was moved higher and increased by about  $\frac{1}{2}$  stop to create a hard accent light on Aléna's hair, giving further separation from the background. Looking at these two images, you can see the difference a few minor lighting adjustments can make in your portraits.

**PHOTOGRAPH 3-15 (FACING PAGE).** This image was intentionally underexposed for a soft, low-contrast, soulful look. *SUBJECT:* Aléna Watters. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{100}$  second, f/10, ISO 200.

**PHOTOGRAPH 3-16 (RIGHT).** Here, the main light was a monolight with barndoors positioned to concentrate the light only on desired areas of model's face. *SUBJECT:* Aléna Watters. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{100}$  second, f/10, ISO 200.

With just a few changes, I quickly produced a high-fashion headshot (**photograph 3-17**; next page). A white background replaced the warm canvas background used earlier. No lights were used to illuminate this, as I desired a neutral gray background. The accent/kicker light was fitted with a warming gel, then placed directly behind Aléna to cast a pleasant light on her hair and right shoulder. The main light remained the same as in the previous shot, but I chose much different camera angle for this gorgeous headshot.





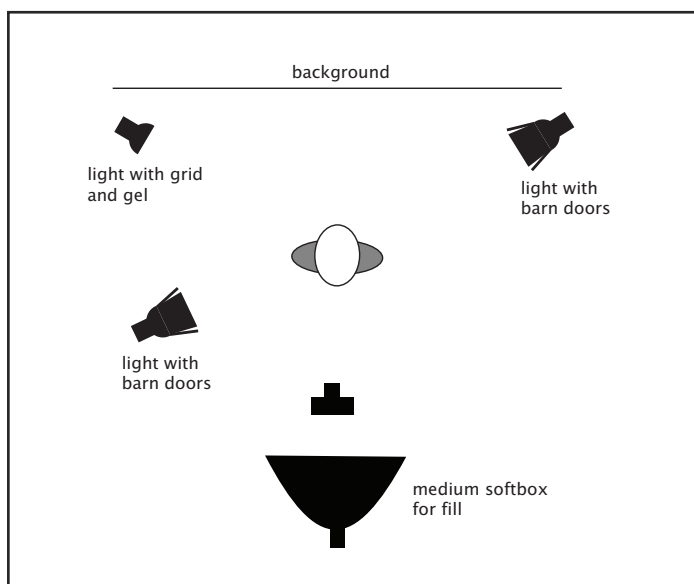
**PHOTOGRAPH 3-17.** A few simple changes resulted in a much different look. *SUBJECT:* Aléna Watters. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{100}$  second, f/10, ISO 200.



**PHOTOGRAPH 3-18.** The main light was positioned very close to the model—much as in **photograph 3-17**. It's a great modern take on an old technique. *SUBJECT:* Aléna Watters. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{100}$  second, f/10, ISO 200.

For the final photograph of the session (**photograph 3-18** and diagram), I incorporated the same Hollywood-style lighting used in earlier illustrations—but here it was to produce a fun, funky, contemporary fashion photograph with a different look from all the other images. Keep in mind that metering your lights is critical to ensure your highlights and shadows are retained in the final image. Looking back on this image, I would have placed a cutter or gobo just below the camera-right accent light to block or reduce the light on her left biceps. I could have Photoshopped out the unwanted highlight—but that would defeat my purpose in this book! Next time, I will pay closer attention.

Diagram for **PHOTOGRAPH 3-18.**





## 4. EXPERIMENTAL LIGHTING TECHNIQUES

Staying fresh and current with the latest techniques allows you to grow as a photographer, producing images that stand out from your competition. It's quite easy to stay inside your comfort zone and produce images that others can easily replicate. My philosophy, though, is to always take the path least chosen. If you do, you will be chosen more often for photographic jobs that are creative and not the norm. Play, experiment, and have fun!

## WHITE BALANCE TECHNIQUES

The following images were created by playing with white balance. In the film days, I had used this technique quite often as a commercial photographer for NASA—but I had yet to use it with digital. Friend and colleague Dave Black reacquainted me with the technique when I attended one of his seminars. You can visit his web site ([www.daveblackphotography.com](http://www.daveblackphotography.com)) for more tips.

Some months after the seminar (and several experimental photo sessions utilizing this technique), Gabriel Grier commissioned me to create some images for his acting/modeling

**PHOTOGRAPH 4-1.** The main light records as neutral, the kickers record as blue. *SUBJECT:* Gabriel Grier. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* 3000K white balance, manual mode,  $\frac{1}{250}$  second, f/7.1, ISO 200.



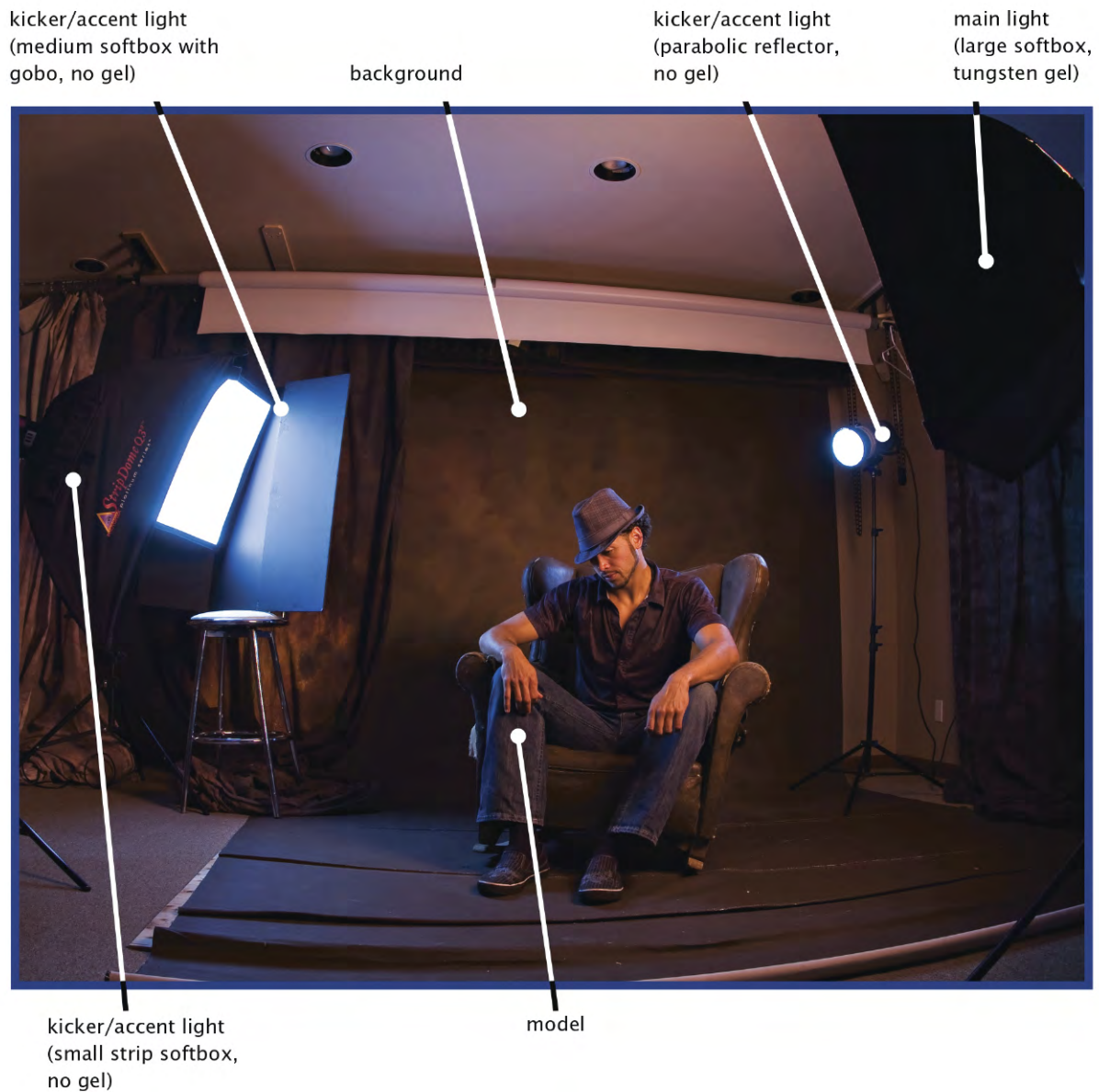
portfolio. Gabe wanted images that were different from those he had from other photographers in Los Angeles. We came up with a “moody blues” theme that would reflect his versatility as a model/actor.

To create a bluesy feeling, the white balance on my D300 was set to 3000K. For **photograph 4-1**, the main light was a Hensel Integra 500 monolight fitted with a medium softbox. This was placed at approximately a 45 degree angle to camera right for soft illumination. Inside the softbox, I placed a warming gel to balance the main light with the camera’s

**PHOTOGRAPH 4-2.** Sometimes the shot is *not* in front of your subject. Move around your subject and you may be surprised at what you find. *SUBJECT:* Gabriel Grier. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* 3000K white balance, manual mode,  $\frac{1}{250}$  second, f/7.1, ISO 200.







Set scene. Notice the gobo placed next to the camera-left accent light. This helped to block light from hitting the background.

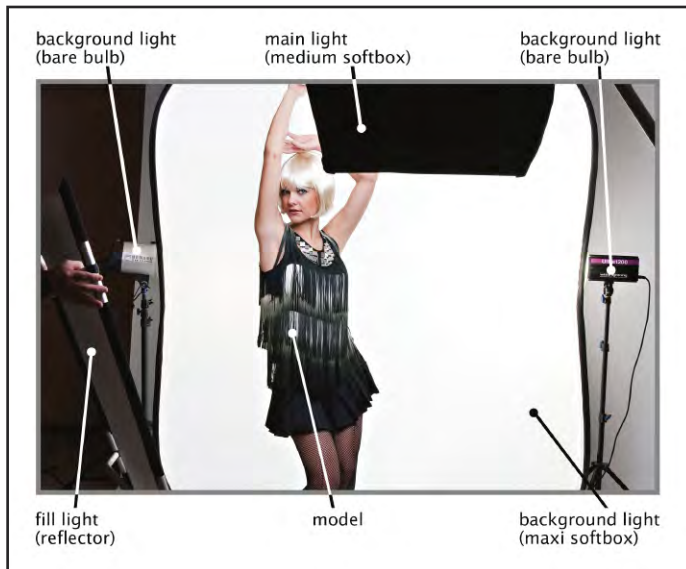
white balance of 3000K. (Don't be afraid to experiment; your subject's skin tone will determine the final effect you achieve.) For separation, I used two monolights, one with a softbox and one with a grid. These metered about one stop brighter than the main light. Because the accent lights were not gelled to match the tungsten white balance of the main light/camera, the accent light recorded as bluer (about 5500K) than the main light.

**Photograph 4-2** affirms why I don't use a tripod while shooting in the studio. I was moving around the set adjusting a light and looked up to see this beautiful angle of Gabe

with the back kicker light acting as a rim light behind him. If you keep your eyes open, you may encounter a happy accident like this image. (Incidentally this image became one of the model's favorites of the entire session.)



**PHOTOGRAPH 4-3.** When using the Maxi as a background, you'll likely see some soft flare in your images. *SUBJECT:* Alianna Zyablovskaya. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{100}$  second, f/11, ISO 200.



Set scene for **PHOTOGRAPH 4-3**. Notice the reflector (for fill) to camera left.

## LASTOLITE MAXI

I like the versatility of the Lastolite Maxi light modifier ([www.lastolite.com](http://www.lastolite.com)). It is quite large, yet very slim, so it fits well in even the smallest of studios. For model Alianna Zyablovskaya, who desired some fun images for her modeling portfolio, the Lastolite Maxi was chosen not as the main light but as a versatile background (**photograph 4-3**). The main light was a medium softbox attached to a Hensel Integra 500 monolight. The Maxi softbox was illuminated with two monolights metered to record one stop brighter than the main light. When using this modifier as a background, don't expect to get crisp images; the light from the softbox typically produces a soft flare on your lens and pleasant wrap-around lighting (**photograph 4-4**).

Affixing gels to the monolights illuminating the background added a touch of color. The camera-left monolight was raised and a blue gel was attached; the camera-right monolight was lowered and fitted with a pink gel. For both background lights the power was reduced by approximately one stop (relative to the main light) to darken the background. The medium softbox (our fill light) was moved approximately five feet further from Alianna. The main light was a Speedotron focusable spotlight fitted with circular cookies ([www.coloradocustommetal.com](http://www.coloradocustommetal.com)). I set the spotlight's power about one stop higher than the fill light to create a very dramatic look. Can you start to see the versatility of using a wide variety of light modifiers?

**PHOTOGRAPH 4-4 (FACING PAGE).** A focusable spotlight with custom-made round cookies placed on it created this beautiful fashion image. *SUBJECT:* Alianna Zyablovskaya. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{100}$  second, f/13, ISO 200.





## STUDIO LIGHTS OUTDOORS

Using your studio lights outside is the same as inside—with one exception: you must determine your shutter speed for the desired background (ambient light) exposure. When shooting with a combination of flash and ambient light, your shutter speed controls the available-light exposure (the exposure of everything not lit by the flash), while your aperture controls the the flash exposure (in most cases, this is the exposure of your subject). Yes, it takes much more effort and courage to use your studio lights outdoors, but the final images you show your clients will be worth the effort.

Ballerina Rhiona O’Laughlin was the perfect subject for this outdoor studio portrait (**photograph 4-5**). Once the location, wardrobe, and props were selected, a wonderful team of helpers started setting up lights—while trying to stay warm. The main light used on this image was a ring flash on axis with the camera. This was metered to record one stop brighter than the background. A simple monolight fitted with barndoors was used as the accent/hair light. This was powered to record one stop brighter than the main light. The barn doors were useful to help block unnecessary light on the scene.

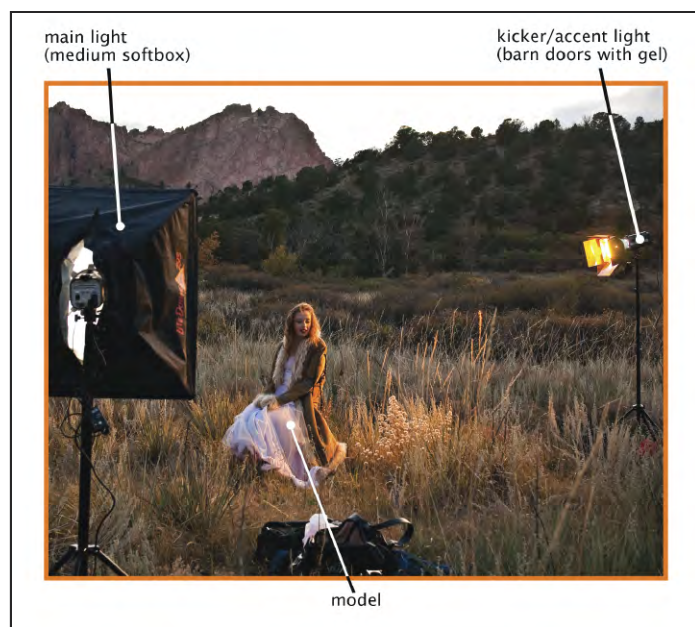
In **photograph 4-6**, the main light was changed to a medium softbox. This was positioned at a 45-degree angle to



**PHOTOGRAPH 4-5.** An incident-light meter reading taken of the ambient light determined my shutter speed. My flash was metered to determine the aperture, which controlled the exposure desired on my model. *SUBJECT:* Rhiona O’Laughlin. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{80}$  second, f/7, ISO 200.

the subject, producing a soft lighting pattern on Rhiona’s face. A warming gel was placed over the accent/hair light to closely match the warmth of the late afternoon sun. My shutter speed was lowered to record more of the ambient light in the scene.

With the same softbox, the light was remetered after Rhiona changed poses (**photograph 4-7**). Here’s a bit of advice: when shooting on location, always bring a small wood board for your model to stand on when posing. I didn’t have one for this shoot, and the young lady accidentally stepped on a hidden cactus. As a true professional dancer, Rhiona continued to pose and smile—despite the cactus and the very chilly Colorado weather. It definitely takes a great team to create great photographs.



Set scene for **PHOTOGRAPHS 4-6** and **4-7**.

**PHOTOGRAPH 4-6 (FACING PAGE, TOP).** My shutter speed was lowered to record more ambient light in the scene, and the main light was slightly underexposed. *SUBJECT:* Rhiona O’Laughlin. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{40}$  second, f/10, ISO 200.

**PHOTOGRAPH 4-7 (FACING PAGE, BOTTOM).** Working with the same lighting setup as in **photograph 4-6**, the exposure was adjusted as Rhiona shifted poses. *SUBJECT:* Rhiona O’Laughlin. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* AWB, manual mode,  $\frac{1}{125}$  second, f/5, ISO 200. *WARDROBE, STYLING, MAKEUP:* Elliot Brooke.







## ANOTHER STYLE

Since this book is designed to illustrate how different modifiers create different looks, I thought it appropriate to include a couple images from my friend, commercial photographer Don Jones of Colorado. The following images show a completely different style than my own and illustrate creative use of modifiers and personal style.

Knowing the capabilities of your equipment and certain lights will allow you to create images that are simple yet very different. Don created this portrait of Roxy (**photograph 4-8**) using a large softbox. This acted as the main light. Two continuous hot lights, balanced for tungsten, were used on the background. Both tungsten hot lights were gelled to 5500K (matching the main light). A slow shutter speed was used to capture the movement of the fabric, kept aloft using a fan. Simply stunning!

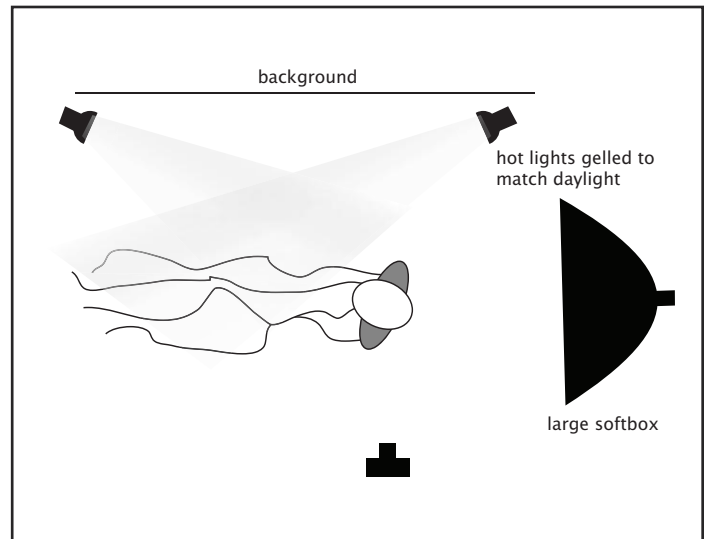


Diagram for PHOTOGRAPH 4-8.



**PHOTOGRAPH 4-8.** *SUBJECT:* Roxy. *CAMERA:* Canon EOS 1 DS-Mark II. *SETTINGS:* Manual mode, .8 second, f/11, ISO 100. Photograph by Don Jones Photography.





**PHOTOGRAPH 4-9.** *SUBJECT:* Kameron. *CAMERA:* Canon EOS 1 DS-Mark II. *SETTINGS:* Manual mode,  $\frac{1}{100}$  second, f/10, ISO 100. Photograph by Don Jones Photography.

Don created a dramatic studio portrait of Kameron (**photograph 4-9**) as a demonstration on using light modifiers for his photography class. This type of portrait cannot be done using softboxes; the light is very directional. This is a four-light setup using modifiers that are hard and directional—grids, snoots, and a focusable spotlight for the background, as seen in the accompanying diagram.

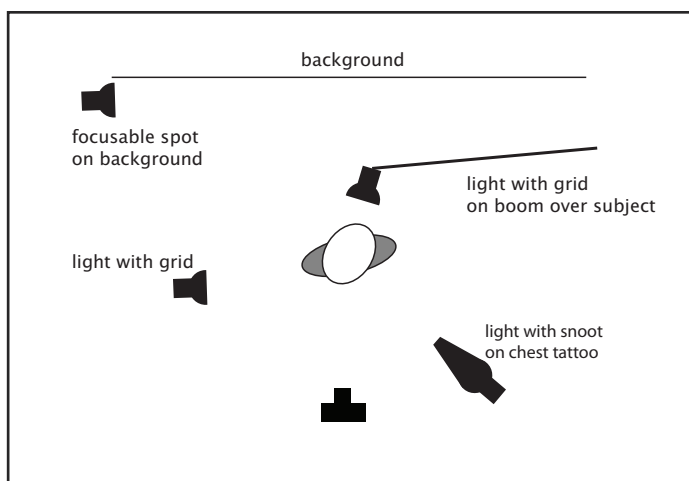


Diagram for **PHOTOGRAPH 4-9.**

## 5. HOT-SHOE FLASH MODIFIERS

When I'm not working in my studio, I frequently work outside and on location, shooting with Nikon SB800 Speedlights. These are portable, powerful and reliable—and with Nikon's SU800 external commander or my Nikon D300's internal commander, it is easy to control multiple flashes. Just because you use a hot-shoe flash doesn't mean

your images need to look like they were shot with on-camera flash, which typically yields images with little dimension. Modifiers for hot-shoe flashes work in exactly the same manner as modifiers for studio strobes. When used properly, the field of light and the quality of light produced by each modifier can rival that of expensive studio lights and modifiers.



PHOTOGRAPH 5-1. An assortment of hot-shoe flash units.



## AN IMAGINARY JOURNEY

Suppose you were on a photo shoot with several photographers—all working with the same model. Or perhaps you've attended a seminar where many people were photographing the same models at the same time. Would your images look different than those taken by the others? I recently put this scenario to the test while photographing in New York City with photographer Jeff Cable.

Jeff and I set out to photograph a couple of male models. Jeff was armed with his Canon camera and Canon flashes; I carried my Nikon D300 and a couple of SB800 flashes. The following images (**photographs 5-2** through **5-7**) prove that your images do not have to look like everyone else's photos—even when shot at the same time, side by side. As you look at the following examples, notice how Jeff and I chose to light our subjects differently. No one way is better than the other. They are just different visions, creating a certain feeling, depth, and style from one image to the next—each representing our unique photographic styles.

I shot **photograph 5-2** of model Scott Wormser after Jeff found this great location. The main light was my SB800 flash bounced off a ProFusion light modifier (we'll see this amazing modifier at work later). This was powered at  $-1$  stop for a soft fill. An additional SB800 flash was powered at  $+1$  stop and placed to the model's right side as a kicker.

Jeff created this image of Scott (**photograph 5-3**) by bouncing his Canon 580EX flash off the side of a large white van to camera right adding a nice fill to Scott's face. Coupled with a great composition, this photo is distinctively different than my image. Can you see the difference?

**PHOTOGRAPH 5-2 (TOP).** *SUBJECT:* Scott Wormser. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* Shutter priority mode,  $1/100$  second,  $f/3.5$ , ISO 200.

**PHOTOGRAPH 5-3 (BOTTOM).** *SUBJECT:* Scott Wormser. *CAMERA:* Canon EOS 5D Mark II, Lexar media. *SETTINGS:* Aperture priority mode,  $1/50$  second,  $f/4$ , ISO 100. Photograph by Jeff Cable.







**PHOTOGRAPH 5-4.** *SUBJECT:* Scott Wormser. *CAMERA:* Canon EOS 5D Mark II, Lexar media. *SETTINGS:* Aperture priority mode,  $\frac{1}{640}$  second, f/5.6, ISO 100. Photograph by Jeff Cable.

Again Jeff found a great spot with beautiful natural light (**photograph 5-4**). He metered the ambient light and adjusted his exposure to ensure the dramatic lighting he envisioned for this image of Scott.

For **photograph 5-5**, I envisioned a cool environmental portrait. To create it, I placed an SB800 to camera left, just behind the model, to illuminate the background wall. This was powered at one stop over the ambient light. The light added detail to the background. An SB800 with a Profusion modifier filled in the shadows on the model's face.







PHOTOGRAPH 5-5. *SUBJECT:* Scott Wormser. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* Manual mode,  $\frac{1}{250}$  second, f/10, ISO 200.







My friend and model Gabriel Grier was in the city, and we decided to shoot into the early evening. Jeff created **photograph 5-6**, a beautifully executed portrait, lit with a single 580EX flash bounced off the side of a white building to camera right. A high ISO, coupled with a slower-than-normal shutter speed and tripod, added additional depth to this beautiful night portrait.

I created **photograph 5-7** just seconds after Jeff created **photograph 5-6**. Two SB800s lit this image. One flash, the standard Nikon diffuser, was positioned approximately 90 degrees to Gabe's left. It was powered half a stop brighter than the main light. The main light was an SB800, again with the ProFusion modifier, placed at a 45 degree angle to camera left. It was controlled via a Nikon SB29 external flash cable and held off the camera axis to create depth in this fashion portrait.

Can you start to see the difference using light modifiers can make in your images? I hope you find that these and the following examples inspire you to take your studio lighting skills into the field and implement them using your hot-shoe flashes. The techniques are pretty easy to master and will result in images that reflect your style.

**PHOTOGRAPH 5-6 (FACING PAGE).** *SUBJECT:* Gabriel Grier. *CAMERA:* Canon EOS 5D Mark II, Lexar media. *SETTINGS:* Aperture priority mode,  $\frac{1}{80}$  second, f/4, ISO 1600. Photograph by Jeff Cable.

**PHOTOGRAPH 5-7 (RIGHT).** *SUBJECT:* Gabriel Grier. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* Manual mode,  $\frac{1}{25}$  second, f/2.8, ISO 1000.





**PHOTOGRAPH 5-8.** These LumiQuest modifiers produce diffused (soft) lighting with a broader field of light. Photograph courtesy of LumiQuest.



**PHOTOGRAPH 5-9.** These Honl modifiers produce specular (hard) lighting that is directional and has a smaller field of light. Photograph courtesy of Honl.



**PHOTOGRAPH 5-10.** Sticky Filter gels are a must for every camera bag. These gels come in two different sizes to accommodate your flash units. There are color-compensating gels and gels for creative lighting effects. They feature a reusable sticky surface that ensures your gels won't blow away in the wind. Photograph courtesy of Stickyfilters.com.



## TYPES OF MODIFIERS

There are just as many modifiers for hot-shoe flash units on the market as there are for studio flashes. Some work better than others; as you experiment, you will find which ones best

enable you to light your photos with your style. **Photographs 5-8 through 5-11** show just a few of the modifiers on the market and describe the light quality they produce.



**PHOTOGRAPH 5-11.** Relatively new to the market, Strobies produce a mixture of soft and hard lighting. Notice that the design of the beauty dish and snoot are miniature versions of modifiers used in the studio, thus creating a similar field of light to the larger studio versions. Photograph courtesy of Interfit Photographics.

## SAMPLE LIGHT-MODIFIER EFFECTS

It would be almost impossible to show *all* the hot-shoe flash modifiers and their particular effects, so I have created a few useful examples with my patient model, Shirley. All of the images were shot using a Nikon D300 with a single Nikon SB800 flash placed off camera at a 45-degree angle to camera left. The SB800 was controlled via an SB29 external cable affixed to my camera's hot-shoe socket. (*Note:* Shirley was positioned in exactly the same way she was for the studio modifier examples seen in chapter 2.) If you study how the light falls on the face and where the shadows fall, you will note that the flash is above the camera axis and pointing down onto the subject.



**PHOTOGRAPH 5-12.** Straight Nikon SB800 flash. The lighting appears hard; the transfer between the highlights and shadows is sharply defined.



The SB800 flash with no modification other than the standard flip-down diffuser that softens the light only slightly.





**PHOTOGRAPH 5-13.** Nikon SB800 flash with a white diffuser. The quality of light is a tad softer than without any modification. (Note: This style of diffuser is also made in a tungsten-balanced color to add warmth to your images.)



**PHOTOGRAPH 5-14.** Nikon SB800 flash with my favorite modifier: the ProFusion. Compared to the Nikon diffuser, the image is softer and has less contrast, which is very pleasing for portrait photography. Additionally, the field of light produced is slightly greater/wider than with most modifiers.



The SB800 flash with a white diffuser.



The ProFusion, designed by Colorado wedding photographer Brad Walters, is relatively new to the market. The beveled design softens the light, spreading it in many directions to ensure a soft wrap-around transition from highlights to shadows. Photograph courtesy of Brad Walters Photography.



**PHOTOGRAPH 5-15.** The Ray Flash is a great addition to your camera bag. It is designed to evenly illuminate your subject, just as a studio ring flash would. You can also attach filters to the flash for creative lighting or to add warmth. (*Note:* With this modifier, try placing your subjects closer than normal to your background. You'll get some great shadowing around them, as seen here.)



The Ray Flash works much like a studio ring light. Photograph courtesy of Ray Flash.



**PHOTOGRAPH 5-16.** A modifier I use a lot is the LumiQuest Max softbox. It's very portable and produces beautiful lighting—great when you need a larger source of soft illumination.



The LumiQuest Max softbox. Photo courtesy of LumiQuest.





**PHOTOGRAPH 5-17.** One of my favorite modifiers is the snoot. The flexible design of the Honl and LumiQuest snoots allows you to control the relative size of the light opening, finessing the light on your images. This is an essential modifier to have in your camera bag.



**PHOTOGRAPH 5-18.** A useful modifier for accent lighting is the Honl grid attachment. This concentrates or constricts your field of light and directs your light source. The Strobies portrait kit also comes with a beautifully designed grid that easily attaches to your flash head. As with studio grids, the size of the grid will determine the intensity and direction of the effect.



The LumiQuest snoot.



The Honl grid attachment. Photo courtesy of Honl.



**PHOTOGRAPH 5-19.** *SUBJECT:* Irena Murphy. *CAMERA:* Nikon D300. *SETTINGS:* Program mode,  $\frac{1}{160}$  second, f/6.3, ISO 400.



**PHOTOGRAPH 5-20.** *SUBJECT:* Irena Murphy. *CAMERA:* Nikon D300. *SETTINGS:* Program mode,  $\frac{1}{250}$  second, f/10, ISO 400.

## EXPOSURE WITH OFF-CAMERA FLASH

Many photographers do not fully understand their camera's exposure capabilities when incorporating a hot-shoe flash unit. As a result, most use their flash on-camera and let the camera do all the work by shooting in program mode and TTL. This is fine for the hobbyist, but it's unacceptable if you're entering photography as a profession.

When balancing flash and ambient light, your shutter speed controls the ambient-light exposure, while your aperture controls the flash exposure on your subject. For example, imagine you are photographing a subject where the ambient light meters  $\frac{1}{100}$  second and your subject exposure, using a flash, measures f/8. If the composition stayed the same and you reduced your shutter speed to  $\frac{1}{30}$  second, the only change in the photo would be a lighter background.

The exposure on your subject would be unchanged. Conversely, if you kept your shutter speed at  $\frac{1}{100}$  second and opened up your aperture to f/5.6, your subject would record as one stop brighter but your background would remain the same or show very little change.

There are several exposure techniques that you can choose when using hot-shoe flash. Some photographers prefer to use aperture priority mode (A on Nikon; Av on Canon), which allows you to control the aperture (the subject exposure) while letting the camera choose the proper shutter speed (the ambient-light exposure).

Personally, when I'm not shooting in the manual mode (where I choose both the shutter speed and aperture myself), I always use the shutter priority mode (S on Nikon; Tv on



Canon). There is no right or wrong technique; I'll explain my preferred method.

Whether inside or outside, the available light typically doesn't change or changes very little. Taking a meter reading with a hand-held meter allows me to measure the available light level and set my shutter speed accordingly. With today's sophisticated flashes and their incredible TTL (through-the-lens) metering capabilities, I typically control the exposure of my flash by increasing or decreasing the power of the flashes via the Nikon's commander function. By using the shutter priority mode, I take one variable out of the equation. Because I have control of the shutter speed, I can control the available light throughout my image by increasing or decreasing my shutter speed—thus changing the relative density of my background to suit my taste. There are many different ways to arrive at the same conclusion, but this is how I typically expose my images when not shooting in manual mode. You may want to experiment on your own and find which technique works best for you.

Whatever method you choose, I would not recommend shooting in program mode. When you do, you have no control over your photographs and you will be at the mercy of the camera's final exposure. Let's look at some examples.

**Photograph 5-19**, featuring model/actress Irena Murphy, was shot on program mode (with no flash) when the sun was low in the sky. The program mode worked; this is a “correct” but average exposure of the scene. If I had another photographer shooting next to me in program mode, we would both have taken the same snapshot (assuming we were using the same focal length).

Let's say I zoomed into the image, as in **photograph 5-20**, still using the program mode but with the addition of TTL flash. Now, the meter in the camera sees a lot of black (the background is a submarine) and a backlit subject. As a result, the camera overexposes the subject to compensate for the dark background, dark clothing, and shadow in the image. The camera produces an overall well-exposed image—although it over-flashed the subject and the image lacks dimension. This is an example of what not to do.

Taking better control of this scene isn't difficult. I placed my camera on manual and took a meter reading for the ambient light (**photograph 5-21**). This gave me a shutter speed of  $\frac{1}{60}$  second. I desired a lighter background, so I adjusted my shutter speed

**PHOTOGRAPH 5-21.** *SUBJECT:* Irena Murphy. *CAMERA:* Nikon D300. *SETTINGS:* Manual mode,  $\frac{1}{40}$  second, f/18, ISO 400.







**PHOTOGRAPH 5-22.** *SUBJECT:* Irena Murphy. *CAMERA:* Nikon D300. *SETTINGS:* Shutter priority mode,  $\frac{1}{20}$  second, f/5, ISO 2000.

to  $\frac{1}{40}$  second to add more light on the background. My flash exposure was f/18 with my SB800 bounced off a Lumi-Quest modifier. The power on my flash was reduced by 1 stop. The result is a beautiful portrait that was created, not “taken.”

When photographing interior portraits, my preferred method of shooting is shutter priority mode. It’s also useful when I am rushed—which was the case when creating **photograph 5-22**. Irena and I were on a Russian submarine tour in California and had very little time to create this image. Using the shutter priority mode enabled me to take one calculation (the aperture) out of my process. For this interior image of Irena, an ISO of 2000 was required in order to handhold at my desired shutter speed ( $\frac{1}{20}$  second). I hand-held the image because I did not have a tripod and the submarine was a very tight working space. At f/5, the power on my SB800 flash (the main light) was reduced by one stop. A second SB800 flash, powered two stops below the ambient

light and fitted with a warming gel, was placed approximately 90 degrees to camera left. Can you see the warm fill on Irena’s right cheek? Had this image been shot in the program mode, the right portion of the scene would have been underexposed and rendered as a black hole, a non-dimensional snapshot.

I should note that the model’s Russian hat was borrowed from the gift shop with advance permission. Without it as a prop, this image would not have been as dramatic or convincing. Don’t be afraid to ask—the worst thing that can happen is they say no. And *always* ask for permission before shooting in a public location.



## 6. LIGHTING OUTDOORS

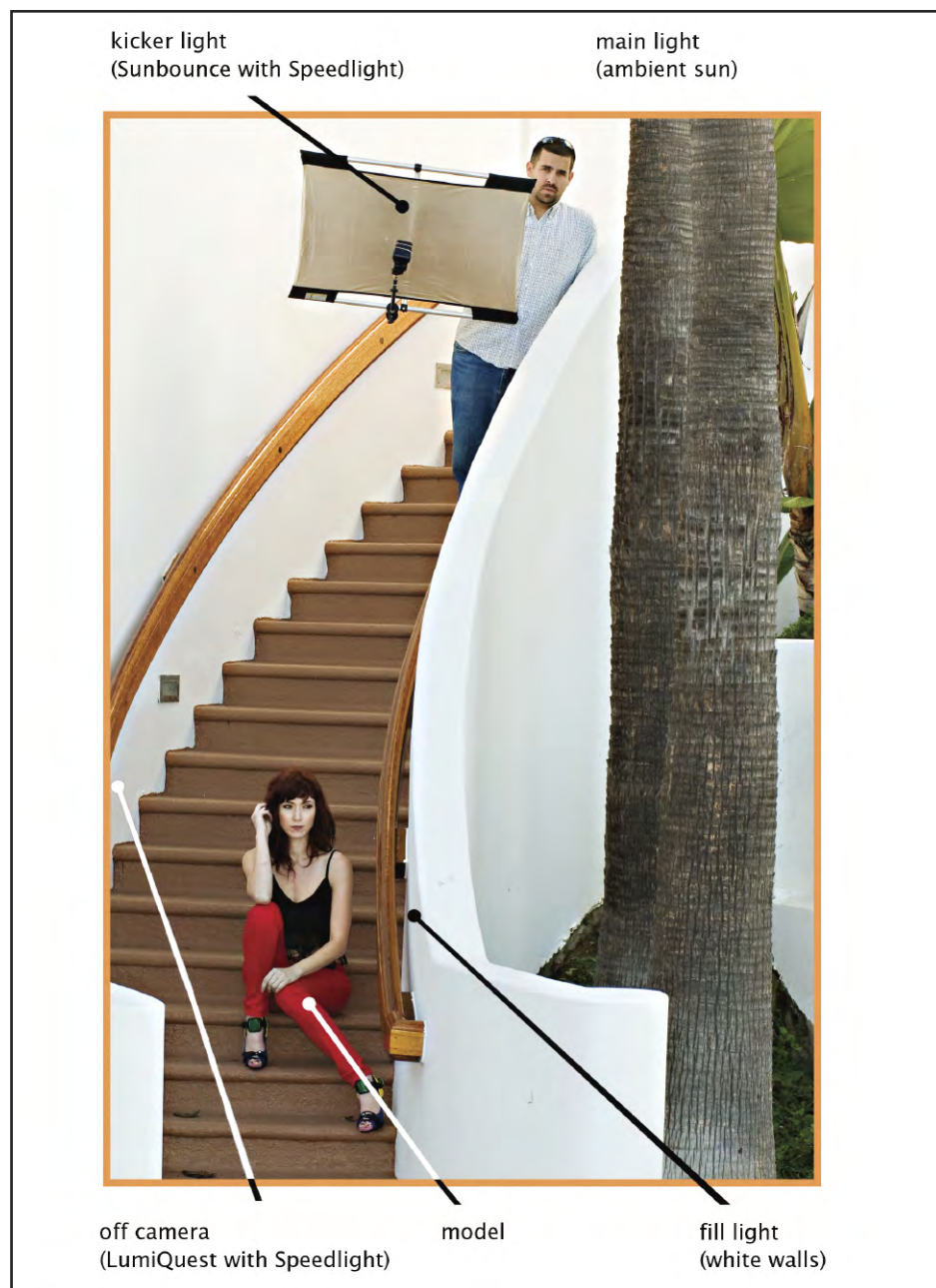
When I set out to create a portrait outdoors, the first thing I look for is the existing light in the scene. I always try to incorporate this into my lighting mix—whether it comes through a window or doorway, or streams down through the trees. Sunlight can be a beautiful accent light (it’s great for background separation) or it can be bounced back onto your subject. Unfortunately, Mother Nature doesn’t always work on our schedule, so it is important to learn to see the ambient light, to control it, and to add additional light creatively.

In this chapter, we’ll look at a variety of lighting techniques that you can use as inspiration for your own photographs. Whatever lighting tools you choose to employ, remember to use your knowledge of light placement when shooting outside. On-camera flash, placed on your camera’s hot-shoe mount, is not acceptable; it will typically produce images that are flat and amateurish.

## CALIFORNIA SUNBOUNCE

When photographing outdoors, additional light is often required. California Sunbounce creates my favorite modifier for this purpose. This ingenious device is a flash arm that allows you to attach your flash to a Sunbounce reflector and bounce flashed light back onto your subject. It's a great tool I use all the time and well worth your investment. Let's look at the Sunbounce in action.

Set scene for **PHOTOGRAPH 6-1** with the California Sunbounce micro zebra with Nikon SB800 attached via a flash arm.



**Photograph 6-1** of Irena Murphy was created on Catalina Island in California. The location was well shaded and lacked any usable available light. Shaun Nink, my nephew and awesome assistant, was positioned at the top of the stairs with the Sunbounce. A micro-mini zebra reflector was chosen as it closely resembled the warmth of the California sun. This was equipped with an SB800 flash powered at one stop over the

ambient light. Had there been available sunlight, I would have not used the flash on the reflector; I could simply have bounced the sun onto Irena's hair.

The main light was a single SB800, powered at one stop lower than the ambient light. This was just to camera left and positioned to create a butterfly lighting pattern. This was fitted with a LumiQuest mini softbox modifier, and you can see the soft transition of highlights and shadows it produced. Using a low contrast ratio worked well for this slightly overcast day. Notice the beautiful, warm light on Irena's hair (and the highlights on the stairs behind her). This accent/hair light was created using artificial bounced light via the Sunbounce. Without this added light, the photograph would lack dimension.

Remember: our job as photographers is to create the look of a third dimension in a two-dimensional print. The only way to do this is through lighting.

**PHOTOGRAPH 6-1 (FACING PAGE).** *SUBJECT:* Irena Murphy. *CAMERA:* Nikon D300. *SETTINGS:* Manual mode,  $\frac{1}{160}$  second, f/6.3, ISO 400.







## DON'T BE AFRAID TO IMPROVISE

When working outside, think of the lighting as if you were in a studio and you'll do great. Let's look at a very simple portrait created for artist Denise Burns while on location on Catalina Island, California (**photograph 6-2**). Desiring a soft portrait that coincided with the beautiful Monet style of Denise's paintings, the location was selected and the sunlight was diffused using a single translucent fabric reflector that added a soft edge transfer on the subject's hair. Denise has a round facial shape, so creating shadow to shape her face was

required. Not having my traditional gobo handy, a black jacket was placed over a reflector—and it proved to be a great substitute, subtracting light and sculpting her facial mask. Clients are paying you to be a problem-solver, not for making excuses about the poor sculpting in their images. A single SB800 powered at one stop below the ambient-light reading and affixed to a micro-mini Sunbounce zebra reflector added the proper warmth for this timeless portrait of Denise.

Set scene for **PHOTOGRAPH 6-2**.



**PHOTOGRAPH 6-2 (FACING PAGE).**  
*SUBJECT:* Denise Burns. *CAMERA:*  
Nikon D300. *SETTINGS:* Manual  
mode,  $\frac{1}{250}$  second, f/8, ISO  
400.



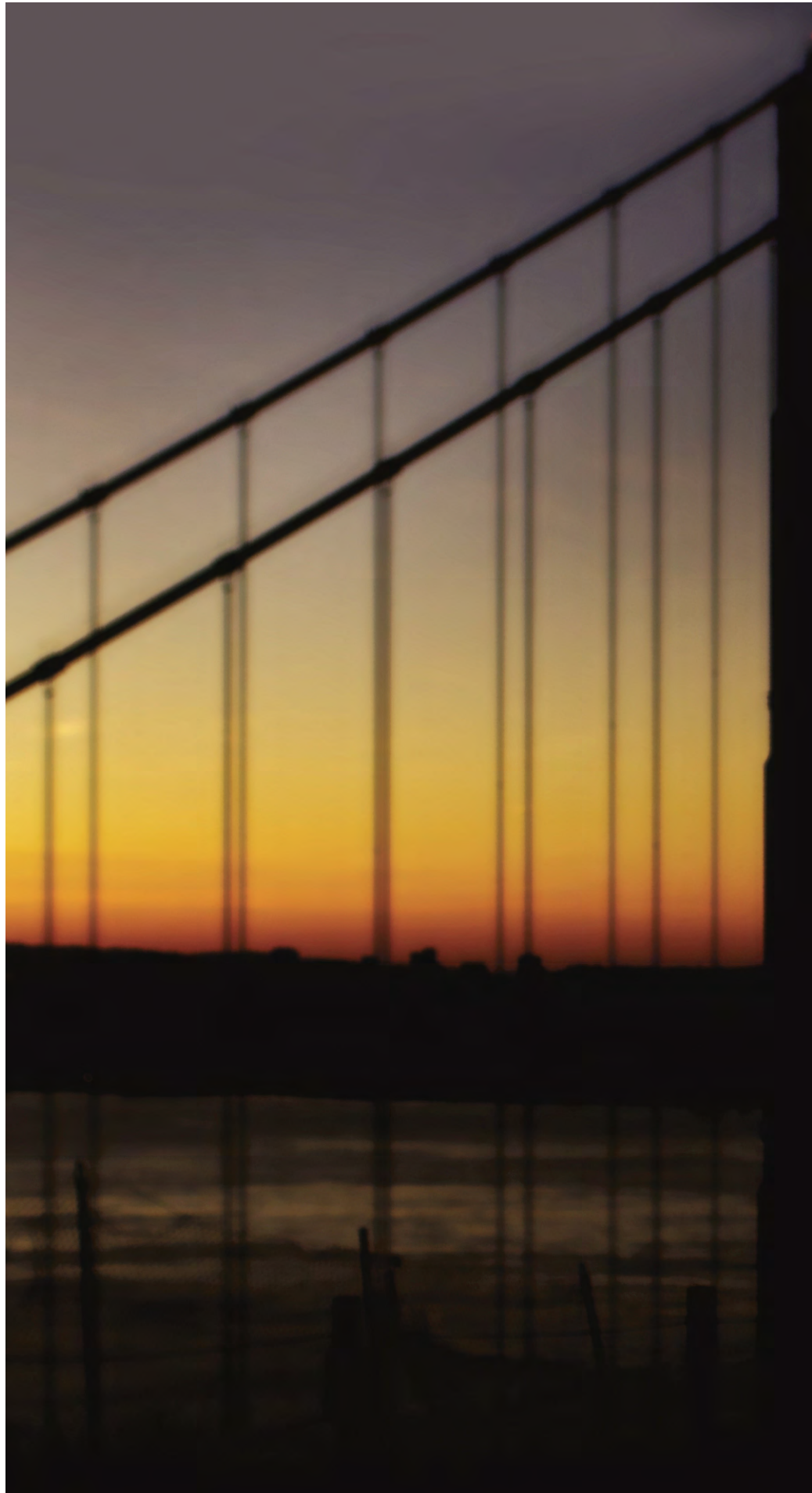




## JUST ONE LIGHT

Bob Ray, a dear friend and California-based photographer, created **photograph 6-3** using a one-light setup. Bob preconceived this image of Los Angeles singer/songwriter Shannon Haley for her upcoming album cover. Once the location was determined, the lighting conditions dictated an early morning wake-up call. The ambient exposure at sunrise was recorded, and a single Nikon SB800 flash was added. The modifier placed on the flash was an 8-degree Honl grid that produced strong, directional light on Shannon's face. The original concept was for the artist to wear a Santa hat to keep her hair from blowing in her face—but the gusty San Francisco winds blew the hat into the bay! Sometimes, though, circumstances change things for the better; Shannon ended up choosing this image specifically because she liked her hair blowing in the wind.

**PHOTOGRAPH 6-3.** *SUBJECT:* Shannon Haley. *CAMERA:* Nikon D300. *SETTINGS:* Manual mode,  $\frac{1}{200}$  second, f/3.5, ISO 400. Photograph by Bob Ray.







## STRIVE FOR VARIETY

When I set out on a shoot, I challenge myself to *not* use the same lighting techniques as I did for my previous session. Perhaps you will incorporate this thinking and challenge yourself to create a different look for each client you encounter. If you do, your work will stay fresh and different.

**Photographs 6-4** through **6-6** were each created during portrait sessions with clients, and each has a totally different look. Since my style of lighting is not traditional, I chose to illustrate beautiful classic portraiture using several images from Boutte's Photography in Colorado. The comparison will show you a different style of lighting.

**Photograph 6-4**, a beautiful high-school senior portrait of Taylor Nichols, was created by Lynn Boutte. To create it, a single SB800 was bounced into a white umbrella. This was placed to camera left at a 45-degree angle, producing a pleasingly soft shadow transfer on Taylor's facial mask. Notice that the position of the light relative to the subject creates a nice sculpting of the young lady's face.

**Photograph 6-5**, a beautifully lit portrait for the Pruett family, was designed using a single SB800 flash placed to camera left and set at f/4. After taking an ambient exposure reading, Lynn placed his camera on manual mode and set

**PHOTOGRAPH 6-4.** *SUBJECT:* Taylor Nichols. *CAMERA:* Nikon D2X. *SETTINGS:* Manual mode, 1/15 second, f/4.5, ISO 100. Photograph by Boutte's Photography.





his shutter speed to  $\frac{1}{30}$  second, approximately  $\frac{1}{2}$  stop brighter than that ambient-light reading, to create soft pastel tones in the fall foliage background. The beautiful lighting coupled with the creative pose and uniform wardrobe makes this family portrait a work of art.

**Photograph 6-6** is a high-school senior portrait of Valerie Montoya. It was created using a single Nikon SB800. This was powered at one stop less than the ambient light reading. Using the sunlight as the hair light and bounced flash as the main made this image a strong senior portrait. The bounced main light appears more specular, as the flash was bounced into a Sunbounce zebra (gold/silver) reflector, which is hard/specular by nature.



**PHOTOGRAPH 6-5 (TOP).** *SUBJECT:* The Pruett family. *CAMERA:* Nikon D2X. *SETTINGS:* Manual mode,  $\frac{1}{30}$  second, f/5.6, ISO 100. Photograph by Boutte's Photography.

**PHOTOGRAPH 6-6 (BOTTOM).** *SUBJECT:* Valerie Montoya. *CAMERA:* Nikon D200. *SETTINGS:* Program mode,  $\frac{1}{100}$  second, f/5.3, ISO 200.



## USE TWO FLASHES

If you were in a studio, you would typically use at least three lights, and possibly a reflector, to create a portrait. When working outdoors, it is also quite effective to use more than one off-camera flash, each powered to its own level. Essentially, outdoor lighting is the same as studio lighting—but you have the added opportunity to use the ambient light to increase depth and dimension. **Photographs 6-7** through **6-10** were all created with more than one flash.

High-school senior Kevin Knowles, seen in **photograph 6-7**, has classic good looks with strong features. To accentuate his features, I chose hard, directional side lighting. An SB800 with the standard Nikon diffuser attached was placed at approximately a 90 degree angle to the camera, six feet to camera left. This flash was positioned quite far from Kevin to ensure a harder-than-normal quality in the accent light on his right cheek (a masculine look). It was powered at one stop over the main light. The fill light was the available light in the scene. An additional SB800, fitted with a ProFusion modifier, added fill; it was powered one stop under the ambient-light meter reading. This was placed at a 45 degree angle to the camera to enhance the shape of Kevin's strong features. To create the dramatic background, a telephoto lens was used to compress the scene. My shutter speed was also increased a stop from that metered, darkening the background.

**Photograph 6-8** was created in the same location as the previous photograph of Kevin. Aubrey Grover's por-



**PHOTOGRAPH 6-7 (ABOVE).** *SUBJECT:* Kevin Knowles. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* Manual mode,  $\frac{1}{250}$  second, f/4.5, ISO 200.

**PHOTOGRAPH 6-8 (FACING PAGE).** *SUBJECT:* Aubrey Grover. *CAMERA:* Nikon D300, Lexar media. *SETTINGS:* Shutter priority mode,  $\frac{1}{1000}$  second, f/2.8, ISO 400.







trait, however, was created using two SB800 flashes, controlled using the commander mode in my Nikon D300. Aubrey's cheerful selection of clothing and her happy personality called for a lighter background. This was accomplished by overexposing the background relative to my ambient meter reading. An SB800 placed on a light stand was placed approximately 90 degrees to the model's right and slightly behind her. The off-camera flash was modified with a Sticky Filter warming gel to create a warm, natural, sun-kissed accent light on her right. This was powered at about one stop over the ambient-light reading. The main light was an SB800 placed 45 degrees off camera and fitted with a ProFusion light modifier to soften the light. It should be noted that when I use more than two flashes, I typically

place the main flash on manual mode and not on TTL. I have more control when the flashes (Nikon SB800) are not in auto TTL mode. Conversely, my kickers are on TTL and controlled via the Nikon SU800 commander.

**Photograph 6-9** is a simple high-school senior portrait of Kaysie Walter. It was created using the Strobie beauty dish. The light from this beauty dish proved to be much softer than that from other modifiers I was accustomed to using—but it fit very well with the accent pearls and quiet personality of the model. To add further depth and separation, a second SB800 affixed with a ProFusion modifier added a soft accent/kicker to Kaysie's dark shirt (to the model's right). The hair light was the natural sunlight shining through the trees.



**PHOTOGRAPH 6-9.** *SUBJECT:* Kaysie Walter. *CAMERA:* Nikon D300. *SETTINGS:* Manual mode,  $\frac{1}{400}$  second, f/3.2, ISO 400.



Aspiring model Rhiona O’Laughlin and I set out to create a unique portrait to be used for her modeling portfolio (**photograph 6-10**). The location was scouted before the shoot, and permission was granted to create a few images inside a restored 1930s trolley car. The clothing was chosen to complement the interior. The resulting image was created using two SB800s and available light. An incident-light reading with my Sekonic 758 determined the shutter speed of  $\frac{1}{80}$  second; the ambient light was the main light on the model’s face. For fill, a Nikon SB800 was fitted with a Ray Flash, a modifier that mimics a studio ring-flash unit. The Ray Flash was placed high to camera left, at a 45 degree angle, and powered at two stops below the ambient light, since only a small amount of fill was desired. A second SB800, fitted with a blue Honl filter, was used to add blue light on the interior and the model’s right cheek. (*Note:* To minimize the distracting background outside, a blur effect was created in postproduction using Kubota Image Tool’s blur action. You could create this effect in-camera using a Lensbaby [[www.lensbaby.com](http://www.lensbaby.com)].)



**PHOTOGRAPH 6-10.** *SUBJECT:* Rhiona O’Laughlin. *CAMERA:* Nikon D300. *SETTINGS:* Manual mode,  $\frac{1}{80}$  second, f/11, ISO 400.

## 7. REFLECTORS

Now, let's take a quick step back and look at something that might seem quite basic but actually generates a lot of questions from my students: reflectors. Reflectors are perhaps the easiest way to control/direct the available light when shooting outdoors. Reflectors give you the ability to photograph at any time of day, regardless of whether there is cloud cover or not. If you only created portraits when the sun was low in the sky, you would only be able to photograph a couple of portraits a day. I prefer to control the sun, so I can shoot whenever I want—all day long, if I so desire.

Though there are many reflectors on the market, my reflectors of choice are those made by California Sunbounce. They provide an even source of illumination, and their design and craftsmanship is superb. Also made by Sunbounce is the Sun-Swatter, a large translucent scrim that attaches to an extension pole and acts as a diffuser for sunny days. I consider this an essential modifier when shooting any type of portrait outdoors.



**PHOTOGRAPH 7-1.** This is a good example of available light that is quite harsh for portraits. I could wait until the sun was lower in the horizon or I could actively control the lighting situation—as in the next image.



**PHOTOGRAPH 7-2.** Without moving the model, I placed the Sunbounce Sun-Swatter above Shirley, softening the highlights on her face. Compare this to the previous image and you'll see a big difference.



**PHOTOGRAPH 7-3.** Here, the Sun-Swatter is still in place (although moved slightly toward the camera to allow a bit of hard light through, adding further depth on the subject's hair). Then, a Sunbounce mini zebra reflector was added at a 45 degree angle to camera left, bouncing warm light onto Shirley. You can see the difference adding a simple reflector makes in your image.







**PHOTOGRAPH 7-4.** In this example, a silver reflector was used to redirect sunlight into the image. Silver is specular and hard. When used properly, though, it creates a beautiful quality of light.



**PHOTOGRAPH 7-5.** White reflectors create softer light and less contrast when used for fill. The white reflector used in this image was a piece of white foam-core board, a material that can be found at any hobby store.



**PHOTOGRAPH 7-6.** Here, a silver reflector was used to redirect the sun onto the subject from camera right. An additional subtracting modifier (black) was then placed close to Shirley's left side to block light and create the soft shadow on her left cheek. Sunbounce makes a great black gobo, but in this case I used a piece of black foam-core board (also available at any hobby store). It just proves you don't have to have expensive equipment to create expensive-looking photographs.



## 8. DRAMATIC PORTRAITS WITH SPECIALTY MODIFIERS

I have already mentioned that I like to create images that are different—images that portray *my* style, not the “norm” of what is available from other photographers in my area. My intention is to spur you, too, to use lighting creatively. In this chapter, we’ll look at some applications for underutilized modifiers and techniques you might want to experiment with.



## SNOOTS

I really enjoy using the LumiQuest and Honl snoots; I particularly like the ability to make the opening of the snoot any size I desire. The following illustrations show the use of the snoot to create unique photographs.

Model Irena Murphy and I set out to test the LumiQuest snoot. Since we wanted to create photos for her fashion portfolio, Irena was wearing a dress she designed and made. The first photo is a typical photograph with a mini softbox attached to an SB800 used off-camera (**photograph 8-1**); the exposure is good, but the shot is predictable at best.

For **photograph 8-2**, replacing the mini softbox with a LumiQuest snoot on a Nikon SB800 created a more unique photograph with little additional effort. This was powered one stop over the ambient light and positioned high above the model to camera right. In this case, I used a LumiQuest snoot, but the Strobie snoot is another wonderful modifier that works the same as a standard studio modifier. This makes it a great inexpensive investment that will certainly add flair to your photographs.



**PHOTOGRAPH 8-1 (TOP).** An SB800 flash was fitted with a LumiQuest mini softbox and powered at one stop below the ambient light. *SUBJECT:* Irena Murphy. *CAMERA:* Nikon D300. *SETTINGS:* shutter priority mode,  $\frac{1}{200}$  second, f/5, ISO 200.

**PHOTOGRAPH 8-2 (BOTTOM).** The main light, a LumiQuest snoot placed high to the model's left, was powered at one stop over the ambient light. *SUBJECT:* Irena Murphy. *CAMERA:* Nikon D300. *SETTINGS:* shutter priority mode,  $\frac{1}{200}$  second, f/5, ISO 200.



## THE RAY FLASH

A Ray Flash was used to create **photograph 8-3**, a stunning and sassy photograph of Rachel Antion. Working in my studio, the Ray Flash was attached to a single Nikon SB800 Speedlight at the camera axis. The round design of the Ray Flash produced pleasing shadows all around the subject. Two studio strobes with their modeling lights on produced

the beautiful warmth in the image (these produce the ambient light in this setup). To do this, meter your strobe's modeling lights as shown in **photograph 8-4**. This gave me an accurate measurement of the ambient light. An incident meter reading was recorded and I set my shutter speed accordingly.



**PHOTOGRAPH 8-3 (LEFT).** *SUBJECT:* Rachel Antion. *CAMERA:* Nikon D300. *SETTINGS:* shutter priority mode,  $\frac{1}{25}$  second, f/2.8, ISO 800.

**PHOTOGRAPH 8-4 (ABOVE).** Barndoors were placed on the studio strobes so no spill light would contaminate the scene. *CAMERA:* Nikon D300. *SETTINGS:* shutter priority mode,  $\frac{1}{25}$  second, f/2.8, ISO 800.



The manner in which you choose to light your subject is more important than the equipment you use. Gabriel Grier was visiting from California and we had just a couple hours to make images to update his portfolio. We chose an alley as the setting for this fashion image. **Photograph 8-5** was shot using only the available light in the scene. As we use simple modifying techniques to create different photographs outside, you might want to refer back to this unmodified image.

An old sawhorse we found in the alley proved to be a useful prop (**photograph 8-6**; next page). It fit with the theme of the location and gave Gabe something to use for posing purposes.



**PHOTOGRAPH 8-5.** *SUBJECT:* Gabriel Grier. *CAMERA:* Nikon D300. *SETTINGS:* shutter priority mode,  $\frac{1}{250}$  second, f/8, ISO 200. Available light only.





**PHOTOGRAPH 8-6 (LEFT).** *SUBJECT:* Gabriel Grier. *CAMERA:* Nikon D300. *SETTINGS:* shutter priority mode,  $\frac{1}{500}$  second, f/5.6, ISO 200.

**PHOTOGRAPH 8-7 (FACING PAGE).** *SUBJECT:* Gabriel Grier. *CAMERA:* Nikon D300. *SETTINGS:* Shutter priority mode,  $\frac{1}{500}$  second, f/5, ISO 200.

The only external source of illumination came from a single SB800 with a Nikon diffuser and a Sticky Filter warming gel to modify the color of the light. This was placed behind the model to camera left (see the set scene for this image at the bottom of the page) and powered at about one stop below the ambient light. This single light, coupled with a dramatic pose, created a dramatic portrait.

When shooting fashion images, the subject should be the clothing, not the model's face (**photograph 8-7**). To illuminate the clothing, my assistant Dan was armed with a mini zebra Sunbounce reflector, which he positioned to bounce light from a Nikon SB800 flash onto the model. This is a simple technique that produces dramatic results. Sunbounce reflectors are rectangular, making them more conducive to photographing full-length images than round reflectors. (*Note:* To get an idea of other images shot in this series, look at **photographs 1-1** and **1-2**, which were shot during the same session.)



Set scene for **PHOTOGRAPH 8-6**.







## STRIVE FOR VARIETY

The next series of photographs illustrates three different looks that can be created using minimal equipment. Working, again, with model Scott Wormser, we had a afternoon to create several different looks for his modeling portfolio—and as illustrations for this book. You already saw a series from this day (**photographs 5-2** through **5-5**), but my favorites from the entire day are shown here (and, incidentally, were the first of the day).

With much pressure, Jeff Cable (who was shooting with me) finally agreed to be my VOL (voice-activated light stand) and help with this series. **Photograph 8-8** was a favorite; it was shot with available light. I really like the relaxed and confident expression on Scott's face. The dark wall to Scott's left acted as a natural gobo, creating a pleasant shadow on his left cheek.

In **photograph 8-9**, the available light from overhead created a strong edge light on Scott's right cheek, adding dimension. To make this photo different, Scott was positioned close to a doorway that was completely black inside. I used the doorway and the dark interior as a makeshift gobo, ensuring that little or no reflected light would fall on Scott's left side, creating shape in the image.

For the last image (**photograph 8-10**), an SB800 flash was fitted with a Sticky Filter warming gel and powered at one stop over the ambient light. This was bounced into a ProFusion light modifier. Jeff positioned this flash to camera right. Shooting in shutter priority mode, I underexposed the background by one stop. Because the natural light was bluish (relative to the warmed flash), the background recorded with cooler tones. I really like this image—it is powerful, yet pretty believable. The warm light seems to be coming either from the sun or from inside a room to the model's left. Scott was amazed when he saw this photo and it became his favorite.



**PHOTOGRAPH 8-8.** *SUBJECT:* Scott Wormser. *CAMERA:* Nikon D300. *SETTINGS:* Shutter priority mode,  $\frac{1}{200}$  second, f/2.8, ISO 200.



**PHOTOGRAPH 8-9.** *SUBJECT:* Scott Wormser. *CAMERA:* Nikon D300. *SETTINGS:* Shutter priority mode,  $\frac{1}{200}$  second, f/2.8, ISO 200.

**PHOTOGRAPH 8-10 (FACING PAGE).** *SUBJECT:* Scott Wormser. *CAMERA:* Nikon D300. *SETTINGS:* shutter priority mode,  $\frac{1}{250}$  second, f/2.8, ISO 200. *LIGHTING:* Gelled SB800.





## 9. USING MULTIPLE FLASHES

When photographing with hot-shoe flashes, especially during weddings, it is easy to just place your flash on-camera and set your camera to the program mode. However, the reason you are reading this book is because you want to make photographs that stand out from your competition. That said, it really doesn't take much more effort to ask a wedding attendant to assist in holding an external flash unit or asking an emerging photographer to assist you at the wedding (or any other photo session, for that matter). There are a lot of willing people who, if asked, would be very happy to help you create beautiful portraits.



## A SIMPLE BRIDAL PORTRAIT

Dan, who was just learning the wonders of lighting at the time, assisted me in making this beautiful portrait of Susan Falls (**photograph 9-1**). The main light was an SB800 bounced into a LumiQuest modifier powered at  $\frac{1}{2}$  stop below the ambient light. This was placed slightly to camera left. I placed Susan next to an antique light (to her left) and metered this using my handheld incident-light meter. Knowing the exposure of the available light, and underexposing it by a couple of stops, ensured the lamp would add a warm (but not overpowering) accent on the bride's left side.

Had I shot this image in the program mode, the background would have been very dark. Using the shutter priority mode allowed me to record the available light in the scene, adding warmth to the portrait.

For **photograph 9-2**, my assistant added a second barebulb SB800 to the bride's right. This was powered at one stop over the ambient light reading. Dan feathered the flash toward the back of the bride, so it added a slight highlight on her right cheek while still illuminating the background.

To create **photograph 9-3**, I positioned my assistant with an unmodified Nikon SB800 flash to camera left, at the top of the staircase. The flash created beautiful shadows and depth on the bride and her gown. The flash was not modified because I desired an old-Hollywood lighting effect to match the vintage location. A second SB800 with Nikon diffuser was placed on a flash bracket above the camera axis, adding fill. This look was enhanced in postproduction using Kubota Image Tools.

**PHOTOGRAPH 9-1.** *SUBJECT:* Susan Falls. *CAMERA:* Nikon D300. *SETTINGS:* Shutter priority mode,  $\frac{1}{15}$  second, f/4.5, ISO 320.



**PHOTOGRAPH 9-1.** *SUBJECT:* Susan Falls. *CAMERA:* Nikon D300. *SETTINGS:* Shutter priority mode,  $\frac{1}{15}$  second, f/4.5, ISO 320.



**PHOTOGRAPH 9-2.** *SUBJECT:* Susan Falls. *CAMERA:* Nikon D300. *SETTINGS:* Shutter priority mode,  $\frac{1}{15}$  second, f/4.5, ISO 320.



**PHOTOGRAPH 9-3.** *SUBJECT:* Susan Falls. *CAMERA:* Nikon D300. *SETTINGS:* Shutter priority mode,  $\frac{1}{15}$  second, f/3.8, ISO 320.



## THEMES

Commissioned to create images for a local modeling/dance school, each session was planned around a theme. This was to give the young ladies a real-world experience of modeling. The illustrations below are from one such session featuring a “Cirque” theme. I chose an old arcade in Manitou Springs, Colorado, for the shoot. The images seen here are just a few of the dozens we shot for the six models that day.

For **photograph 9-4**, I placed model Aubrey Grover next to a window, as the arcade was very dimly lit. An incident-light reading of the window light was taken, and it was determined that this would be the main light. For fill, an SB800 flash with a ProFusion modifier was powered at two

stops below the main light and placed to camera right. The backlight, another SB800 flash, was fitted with a tungsten Sticky Filter gel to add warmth to the model’s hair. Incidentally, the tungsten filter closely matched the available light throughout the arcade.

To quickly change the look (**photograph 9-5**), the background SB800 (still fitted with the warming gel) was powered at at 1½ stop over the ambient light and moved directly behind the model to light her hair. The main light (a Nikon SB800 with a ProFusion light modifier) was moved to camera left, creating a nice split light that enhanced the shadowing on the model’s face.

**PHOTOGRAPH 9-4.** *SUBJECT:* Aubrey Grover. *CAMERA:* Nikon D300. *SETTINGS:* Shutter priority mode, 1/50 second, f/2.8, ISO 1000.



**PHOTOGRAPH 9-5.** *SUBJECT:* Aubrey Grover. *CAMERA:* Nikon D300. *SETTINGS:* Shutter priority mode, 1/30 second, f/2.8, ISO 1000.







**PHOTOGRAPH 9-6 (ABOVE).** SUBJECT: Michelle Tebedo. CAMERA: Nikon D300. SETTINGS: Program mode,  $\frac{1}{20}$  second, f/7.5, ISO 1000.

**PHOTOGRAPH 9-7 (RIGHT).** SUBJECT: Michelle Tebedo. CAMERA: Nikon D300. SETTINGS: Shutter priority mode,  $\frac{1}{100}$  second, f/2.8, ISO 1000.



Michelle Tebedo was a delightfully animated young lady. Being a dancer by nature, her posing and facial expressions worked with her wardrobe that made **photograph 9-6** a fun image—but it's a snapshot that anyone could have snapped, given today's technology. The main light was the available light. The fill light source was an SB800 flash with a ProFusion modifier set on TTL.

To infuse the image with my style (**photograph 9-7**), I added a barebulb SB800 flash with a warming gel. I wanted this accent light to record as hard light, hence the omission of a modifier. My assistant, positioned inside the arcade, held the flash high and far from the subject, making the edge ac-

cent light all the more specular. Since barebulb sources have a large field of light, this flash also illuminated the background of the arcade (notice how different it is here than in **photograph 9-6**). An SB800, softened with a ProFusion modifier, was used as the main light. This was placed high, at a 45 degree angle to the subject. The main light was powered at half a stop below the ambient light; the backlight was one stop over the ambient light. All were controlled using the Nikon D300's internal commander mode.

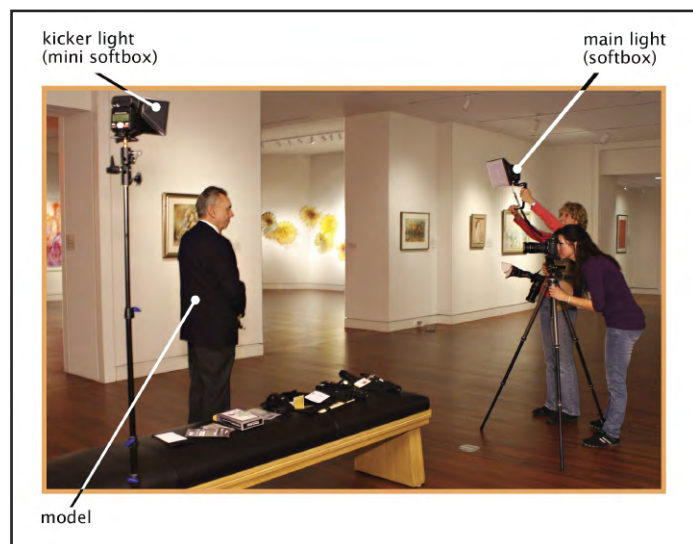
Notice the tilted camera angle. When using this tilt, be certain your subject is grounded (perpendicular to the camera), as her right foot is here.

## CHANGING MODIFIERS

The next series of photographs was shot during a lighting class I was teaching. Our patient model, Barry Farris, is a guard at the museum seen in the background (the Fine Art Center in Colorado Springs, Colorado). Notice how merely changing a modifier, thus changing the quality of light, creates a completely different portrait.

The set scene (below) shows the exact light placement for the entire series of images of Barry. The only changes made were the replacement of the modifiers on the main and fill lights. When you approach a location, it is a good idea to become familiar with the color temperature and availability of the ambient light in your scene. Many times, it can be incorporated into your lighting mix with great results. (*Note:* When shooting inside, it is best to use a tripod; your shutter speeds tend to be too low to handhold.)

For **photograph 9-8**, Barry was placed between galleries with a white wall behind him. The light emanating from behind Barry was illuminating a painting that Barry was posed to conceal. An incident-light reading of the ambient light was taken with my Sekonic meter and recorded as  $\frac{1}{8}$  second. I chose to underexpose the background (darken it) by increasing my shutter speed to  $\frac{1}{13}$  second. Two Nikon SB800 flashes were then added to light the scene. The main light was a LumiQuest softbox powered at half a stop below the ambient light reading. This was positioned approximately 45 degrees to camera right. The accent light was an SB800 with



Set scene. Photography student Mary Hurley assists, holding the main light. Photograph by Tammy Awtry.



**PHOTOGRAPH 9-8.** SUBJECT: Barry Farris. CAMERA: Nikon D300. SETTINGS: AWB, manual mode,  $\frac{1}{13}$  second, f/5.6, ISO 400.



**PHOTOGRAPH 9-9.** SUBJECT: Barry Farris. CAMERA: Nikon D300. SETTINGS: Tungsten white balance, manual mode,  $\frac{1}{13}$  second, f/5.6, ISO 400.

a Nikon diffuser attached. Notice that the kicker is approximately one stop brighter than the main light, creating a dramatic highlight on the subject's cheek. This is a technique I use quite often when photographing men.

If you look at **photograph 9-9**, you'll see several minor differences from the previous photo. The kicker light's ProFusion modifier was replaced with a small Honl softbox. The



camera's white balance was set to tungsten and a Sticky Filter tungsten gel was placed on the main light to closely balance the main light with the available light. You can see that the light from the kicker is bluer in color, as the flash was not gelled and recorded at its original 5500K temperature. This resulted in a slightly bluer tone on the subject's right cheek, though the walls behind Barry are more neutral to balance the available light color temperature. If desired, this slight color difference could be adjusted in Photoshop—but I like the effect.

To change the look of the portrait, for **photograph 9-10** the kicker light was turned off and a Honl grid was placed on the main flash. The flash was gelled with Sticky Filter tungsten gel and powered at one stop over the ambient light. The result is a dramatic portrait created using one light (plus the ambient light). When using a grid or snoot, be aware that as your light source becomes smaller and more directional an increase in flash power will be necessary.

**PHOTOGRAPH 9-10.** *SUBJECT:* Barry Farris. *CAMERA:* Nikon D300. *SETTINGS:* Tungsten white balance, manual mode,  $\frac{1}{13}$  second, f/5.6, ISO 400.





## TELLING A STORY

Photographer Bob Ray certainly creates portraits that tell a story. Bob created these stunning photographs of Ashley Conrad, who sang at Carnegie Hall in New York City—and a few months later was diagnosed with cancer and fighting for her life. During this time, she stayed at Manhattan’s Ronald McDonald House, where these images were created.

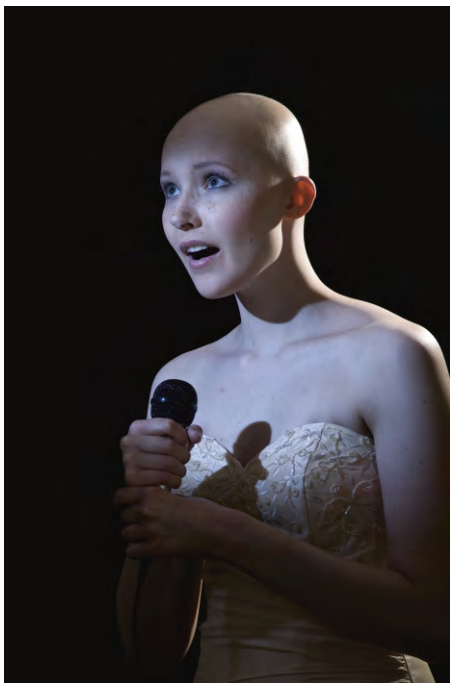


In **photograph 9-11**, the main light was a Nikon SB800 placed in a 28-inch Westcott softbox to camera left, a soft source of illumination on Ashley’s face. A second SB800, placed approximately 90 degrees to her left, was fitted with a Honl grid to add separation between the background and Ashley’s left shoulder. A third SB800 was powered at two stops below the ambient light level and bounced into a silver reflector that was resting on the floor in front of and below the model. This added a slight fill and specular sparkle to her eyes. A shutter speed of  $\frac{1}{80}$  second was just slow enough to record a beautiful natural hair light (from overhead skylight) and provide a pleasant level of illumination on the background.

Bob’s subsequent images of Ashley tell a completely different story—even though they were taken only twenty minutes apart. For **photograph 9-12**, Bob wanted to create the feel of Ashley singing on stage. Therefore, he moved his subject to a long, narrow hallway and increased his shutter speed to  $\frac{1}{320}$  second to ensure a completely dark background that mimics a stage setting. His assistant, Heather ter Steege, held a single SB800 fitted with a blue gel and a Honl grid as the main light. This was placed just out of frame to camera left. A second SB800, bare of modifiers and powered to record at one stop above the main light, was used as a kicker to camera right. The omission of a modifier on the kicker added a dramatic feel that is consistent with stage lighting. It’s a

**PHOTOGRAPH 9-11.** *SUBJECT:* Ashley Conrad. *SETTINGS:* Manual mode,  $\frac{1}{80}$  second, f/8, ISO 200. Photograph Bob Ray.





**PHOTOGRAPH 9-12.** *SUBJECT:* Ashley Conrad.  
*SETTINGS:* Manual mode,  $\frac{1}{320}$  second, f/8,  
ISO 200. Photograph Bob Ray.

**PHOTOGRAPH 9-13.** *SUBJECT:* Ashley Conrad.  
*SETTINGS:* Manual mode,  $\frac{1}{320}$  second, f/8,  
ISO 200. Photograph Bob Ray.



well-executed photograph that looks as though it was photographed on a stage as this young woman sang for the crowd.

To create **photograph 9-13**, Bob replaced the Honl grid with a flexible Honl snoot, creating a larger field of light on

the model's face. An additional SB800 with a snoot was placed to direct light onto the flowers. This flash was powered about  $\frac{1}{2}$  stop brighter than the main light.

In a short period of time, three distinctly different images were created—not “snapped.”

## WHEN MOTHER NATURE DOESN'T COOPERATE

There are often times when Mother Nature isn't very cooperative. Austin Lux, the subject of this portrait, is an aspiring pilot, and the idea of creating his senior portrait at the airport proved uniquely challenging. On the day of Austin's session, there was no sun and the wind was starting to pick up quite a bit. We had to work quickly so Austin's flight instructor could fly home—in the airplane seen in the background—before the bad weather set in. Decisions had to be made in a timely fashion on how to light this young man. We ended up using four SB800 flashes and a reflector to make up for the poor available light, which was scarce and dreary.

Let's take a look at the set scene, the lights used, and their placement relative to the subject (below). The main light was an SB800 powered to two stops over the ambient light. This was placed inside a medium softbox. My assistant, Dan,

held a kicker/accent light (at one stop over the main light) to camera right, adding a nice highlight on Austin's left cheek. A single SB800 fitted with a warming gel added extra light on the airplane. Below Austin's face, an SB800 (powered one stop below the main light) was bounced into a micro mini zebra Sunbounce reflector, adding warm light in the shadows and making his eyes sparkle.

Creating this image was quite challenging (as you can see in the set scene, Austin's mother and brother even got drafted as assistants!), but the final photograph is a beautiful environmental portrait.

### SANDBAGS

When shooting outside, always carry sandbags to stabilize your light stands.

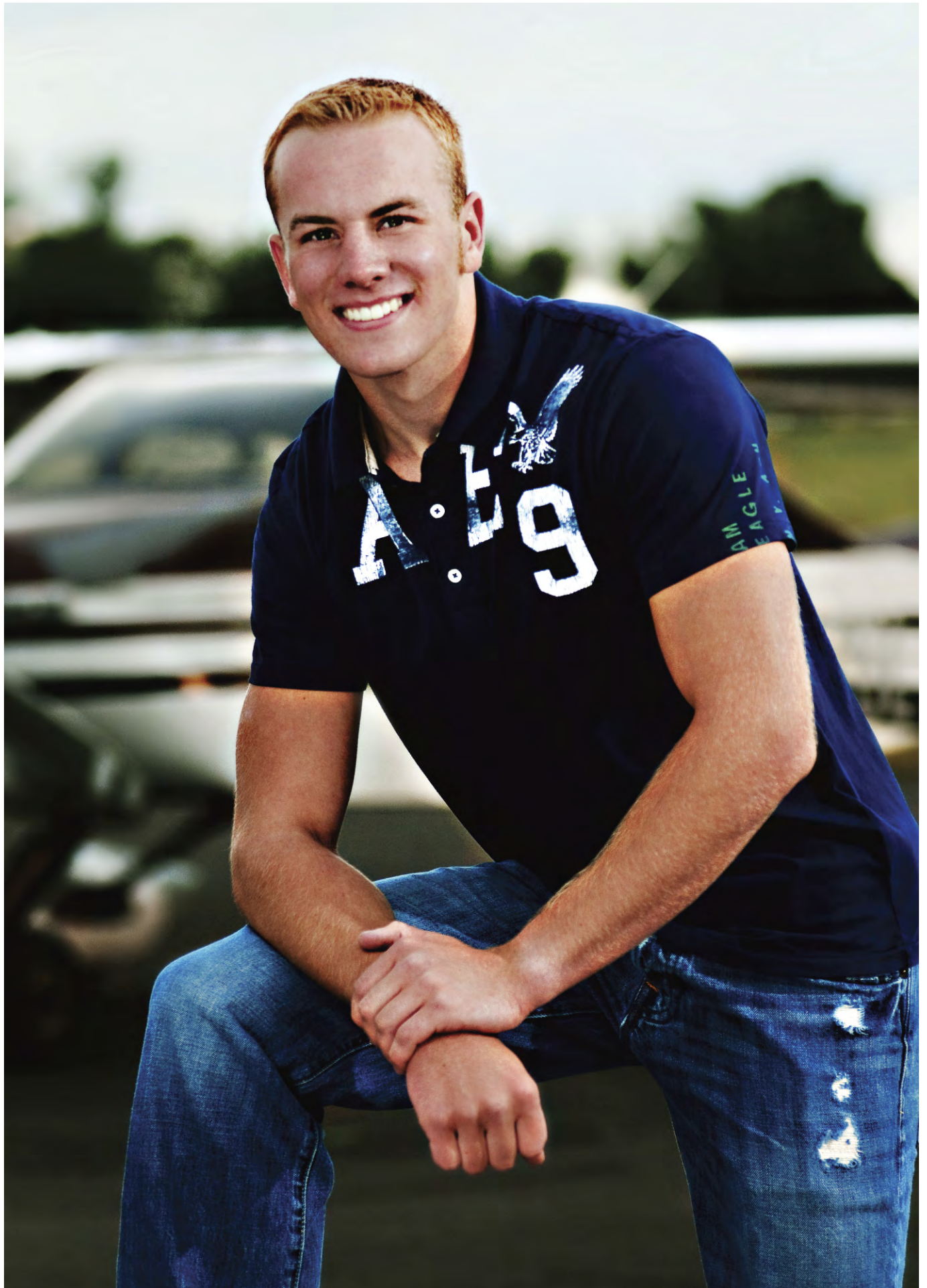


**PHOTOGRAPH 9-15 (FACING PAGE).**

*SUBJECT:* Austin Lux. *CAMERA:* Nikon D300. *SETTINGS:* Manual mode,  $\frac{1}{500}$  second, f/3.5, ISO 400.

**LEFT:** Set scene for PHOTOGRAPH 9-15.







## THE FOURSQUARE MODIFIER

My dear friend Dave Black created **photograph 9-17**, titled *High Note*. To create it, Dave changed his camera's white balance to tungsten (3030K) and fitted his main light with a tungsten-balanced filter to match. This produced a natural color balance on Kourtney's skin. The remaining unfiltered lights recorded as bluish (5500K).

For this shot, Dave used two SB900 flashes (each powered at +1.7 stops) in a FourSquare light modifier (more on this below). A third SB900 (powered at -2.3 stops) without a modifying gel was placed at floor level, aimed at the background to illuminate it for added depth and dimension.

There may be times when you desire to shoot at a location with very little ambient light. I chose one such location (**photograph 9-18**) to photograph aspiring model Rhiona O'Laughlin. The location was the Pikes Peak Historical Street Railway Museum in Colorado Springs. The fine folks who volunteer for this non-profit museum were very gracious and helpful in allowing me to photograph on-site using an old 1901 trolley car as my prop. There was no usable available light, so I had to light the entire scene.

I could have used my studio strobes, but I recalled a relatively new product introduced to me some months early by Dave Black: the FourSquare modifier de-



**PHOTOGRAPH 9-16.** FourSquare modifier. By placing the fabric on the modifier, you are able to create several different qualities of light with one modifier. Photo courtesy of Lightware Direct.

**PHOTOGRAPH 9-17.** *SUBJECT:* Kourtney. *CAMERA:* Nikon D3X. *SETTINGS:* 3030K white balance, manual mode,  $\frac{1}{800}$  second, f/4.9, ISO 400. Photograph by Dave Black.







**PHOTOGRAPH 9-18 (ABOVE).** *SUBJECT:* Rhiona O’Laughlin. *CAMERA:* Nikon D300 on tripod, 24–70mm lens, Lexar media. *SETTINGS:* Manual mode,  $\frac{1}{8}$  second, f/10, ISO 800.

**RIGHT:** Set scene for **PHOTOGRAPH 9-18.**







**PHOTOGRAPH 9-19.** *SUBJECT:* Rhiona O’Laughlin. *CAMERA:* Nikon D300, 80–200mm f/2.8 lens, Lexar media. *SETTINGS:* Manual mode,  $\frac{1}{6}$  second, f/11, ISO 800.

signed by Paul Peregrine of Lightware Direct ([www.lightwaredirect.com](http://www.lightwaredirect.com)). This is a versatile modifier designed to be used with up to four flashes.

The FourSquare with four Nikon SB800s attached was used to illuminate the model (posed on the trolley car inside a very dark warehouse). Two of the flash heads were positioned so they bounced off the back of the modifier and directly through the FourSquare’s translucent fabric to evenly illuminate the top of the trolley car. These were powered one

## LINE-OF-SIGHT FLASHES

When more distance is required, or when your flashes are hidden from line-of-sight, it will be challenging to get predictable firing results. Instead, consider using radio poppers, which are designed to turn your line-of-sight flashes into flashes that are triggered by a radio frequency.

stop lower than the two bottom flash heads, which were aimed directly at the model to create a harder, more directional source of light on Rhiona.

To illuminate the background, four monolights aimed down into the trolley car to create depth. Each monolight was fitted with grids and barndoors to control the field of light. Using only the tungsten-balanced modeling lights (on full power)—and slowing my shutter speed to the metered exposure for them—produced a very warm quality of light, simulating a sunset feeling.

For a completely different look and feel in **photograph 9-19**, the FourSquare was removed from the scene and an SB800 fitted with a LumiQuest Max softbox (at two stops below the main light) was placed to camera right for fill. The main light was an SB800 flash fitted with a Sticky Filters tungsten gel. This was positioned to the right of the model, creating a very convincing sunset portrait. One monolight, fitted with barndoors, was positioned at approximately a 90 degree angle to the model and close to the main light, illuminating the interior of the trolley car behind and to her right. For a “lighter” feeling, I reduced my shutter speed from  $\frac{1}{8}$  second to  $\frac{1}{6}$  second, brightening the background. Although my camera position did not change, I switched from a 24–70mm lens to an 80–200mm lens for this shot; using a long lens compressed the background.

Let’s look at one last example using the FourSquare—but this time in an outdoor portrait. Dave Black created this beautiful image (**photograph 9-20**) titled *Morning Flyer*. Four Nikon SB900 flashes were placed inside the FourSquare and controlled with a wireless radio-remote system. This was necessary because the distance from the camera to the main light was over a hundred feet. Each SB900 inside the FourSquare was powered to –1.7 stop, providing enough illumination for this photograph.

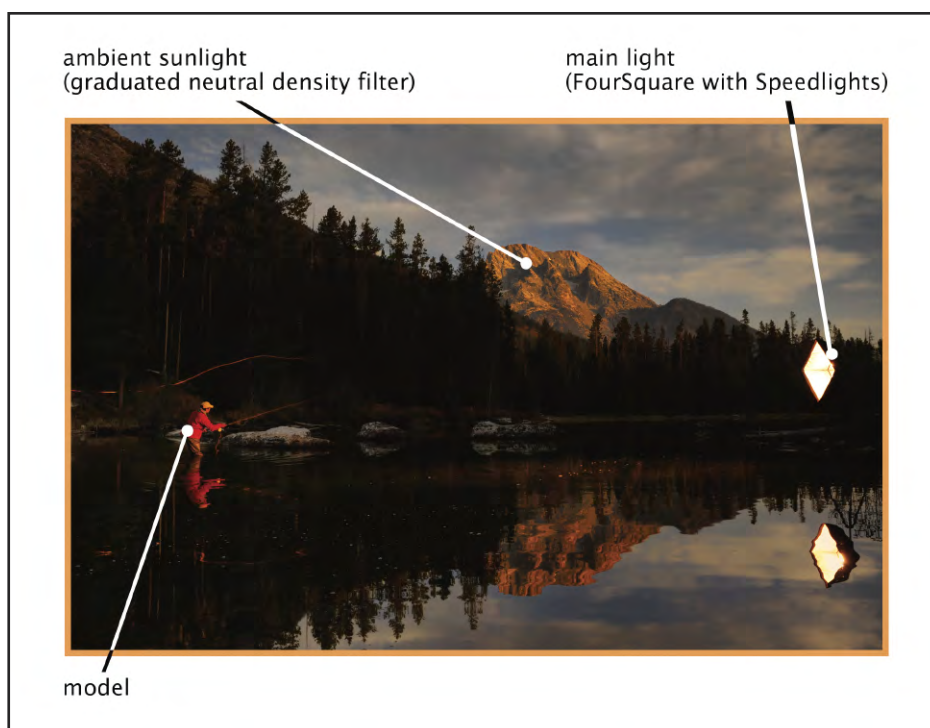
Notice that the modifier was placed at a 90 degree angle to the subject, creating a natural-looking source of light. A 3x graduated neutral-density filter was placed over the lens to balance the ambient sunlight in the top portion of the frame (the mountain and sky).





**PHOTOGRAPH 9-20.** *CAMERA:* Nikon D3,  
24–70mm f/2.8 lens, Lexar media.  
*SETTINGS:*  $\frac{1}{200}$  second, f/9, ISO 1000.  
Photograph by Dave Black.

**RIGHT:** Set scene for **PHOTOGRAPH 9-20.**



# CONCLUSION

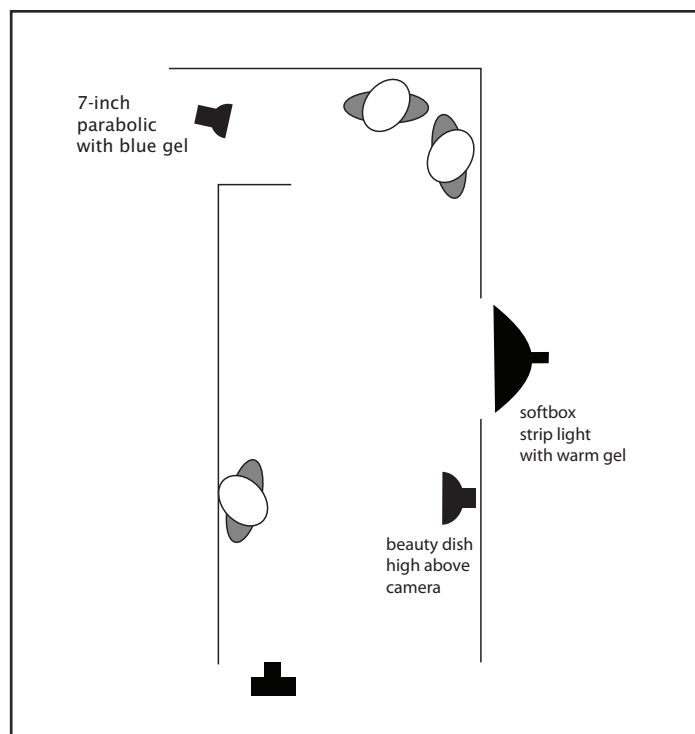
As you study the light qualities that can be produced with different modifiers, you will become more open to experimenting and challenging your mind with the creative use of lighting. With practice, you will be on your way to becoming a photographer who *makes* photographs instead of a photographer who *takes* photos.

I thought it fitting to end the book with a photograph that was created for a lighting article back in 2006—an article that was, incidentally, the start of the *Sculpting with Light®* book series with Amherst Media. Additionally, it is a strong illustration using many different modifiers on multiple subjects to create a photograph that I feel shows my personal creative style.

For **photograph C-1**, the main light on Michael Johnson was a Hensel beauty dish. A small strip softbox fitted with a warming gel was placed in the doorway at the center of the image to add depth and warmth. The young ladies, Irena Murphy and Amy Rizer, were lit using a single monolight with 7-inch parabolic. This was fitted with a blue gel to add intense light in a complementary color to the ambient light. An incident-light exposure reading was recorded, and my shutter speed was lowered to  $\frac{1}{40}$  second so the ambient lighting would record on my digital sensor. The only re-touching on this image was the removal of a smoke alarm and minor complexion retouching on the model's face.

I hope you are inspired by the illustrations throughout this book. Lighting is the single most important factor in creating photographs that look different, or convey a certain mood, texture, or story. Understanding the physics of light and learning to control the light using different modifiers will greatly enhance your photographs. It will also help you stand out from the hundreds of other photographers who have entered the photography market. In no time, you will see your photographic style magically begin to develop.

Enjoy—and happy shooting!



**PHOTOGRAPH C-1 (FACING PAGE).** CAMERA: Nikon D70s, 18–70mm f/3.5/4.5 lens, Lexar media. SETTINGS:  $\frac{1}{40}$  second, f/11, ISO 200.

ABOVE: Diagram for **PHOTOGRAPH C-1**.





# RESOURCES

<b>Adobe Photoshop</b>	<a href="http://www.adobe.com/photoshop">www.adobe.com/photoshop</a>
<b>California Sunbounce</b>	<a href="http://www.sunbounce.com">www.sunbounce.com</a>
<b>Canon USA</b>	<a href="http://www.canonusa.com">www.canonusa.com</a>
<b>Colorado Custom Metal</b>	<a href="http://www.coloradocustommetal.com">www.coloradocustommetal.com</a>
<b>Drop it Modern</b>	<a href="http://www.dropitmodern.com">www.dropitmodern.com</a>
<b>FourSquare</b>	<a href="http://www.lightwaredirect.com">www.lightwaredirect.com</a>
<b>Hensel USA</b>	<a href="http://www.henselusa.com">www.henselusa.com</a>
<b>Honl</b>	<a href="http://www.honlphoto.com">www.honlphoto.com</a>
<b>International Supplies (CBL)</b>	<a href="http://www.internationalsupplies.com">www.internationalsupplies.com</a>
<b>Kubota Image Tools</b>	<a href="http://www.kubotaimagetools.com">www.kubotaimagetools.com</a>
<b>Lastolite</b>	<a href="http://www.lastolite.com">www.lastolite.com</a>
<b>Lensbaby</b>	<a href="http://www.lensbaby.com">www.lensbaby.com</a>
<b>Lexar</b>	<a href="http://www.lexar.com">www.lexar.com</a>
<b>LumiQuest</b>	<a href="http://www.lumiquest.com">www.lumiquest.com</a>
<b>Nikon USA</b>	<a href="http://www.nikonusa.com">www.nikonusa.com</a>
<b>Pocket Wizard</b>	<a href="http://www.pocketwizard.com">www.pocketwizard.com</a>
<b>ProFusion</b>	<a href="http://www.profusion-flash-diffuser.com">www.profusion-flash-diffuser.com</a>
<b>Ray Flash</b>	<a href="http://www.ray-flash.com">www.ray-flash.com</a>
<b>Sekonic</b>	<a href="http://www.sekonic.com">www.sekonic.com</a>
<b>Speedotron</b>	<a href="http://www.speedotron.com">www.speedotron.com</a>
<b>Sticky Filters</b>	<a href="http://www.stickyfilters.com">www.stickyfilters.com</a>
<b>Strobies</b>	<a href="http://www.interfitphotographics.com">www.interfitphotographics.com</a>



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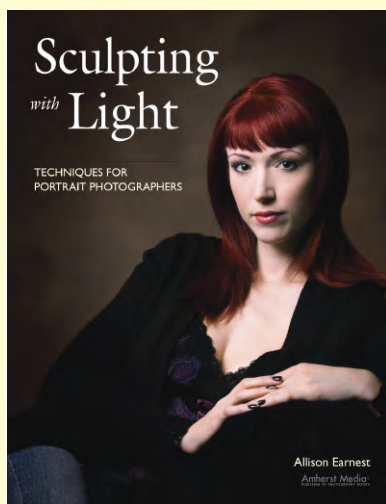
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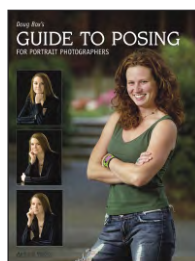


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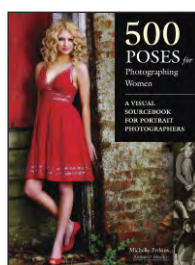
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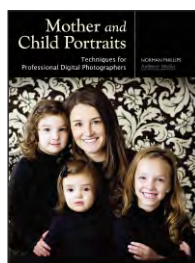
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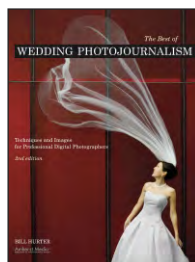
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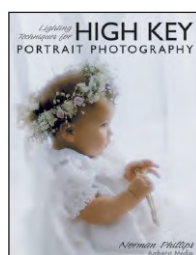
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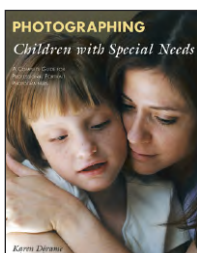
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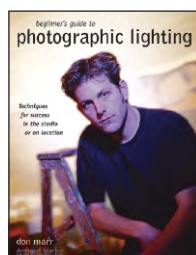
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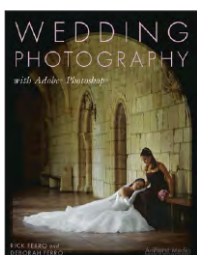
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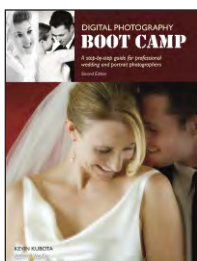
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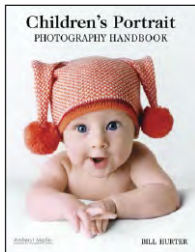
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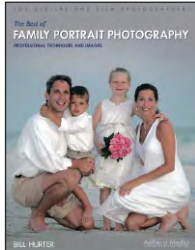
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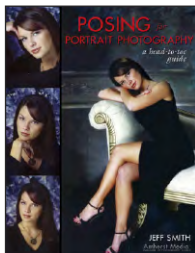
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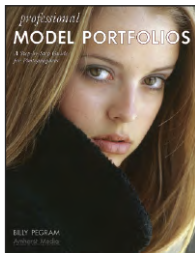


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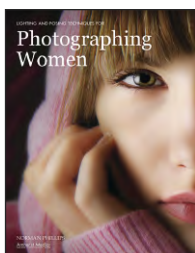
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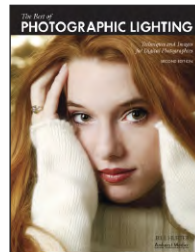
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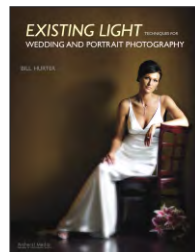


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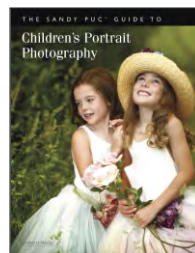


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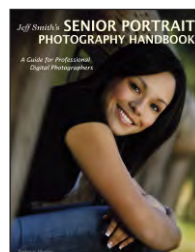


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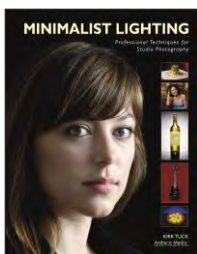


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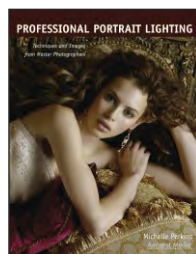


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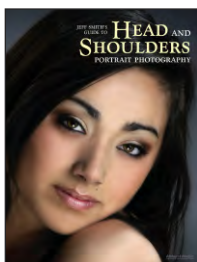
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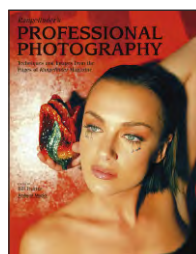
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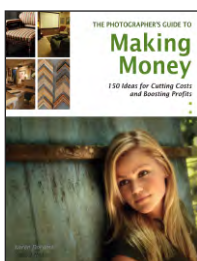
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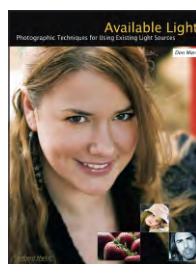
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